IND

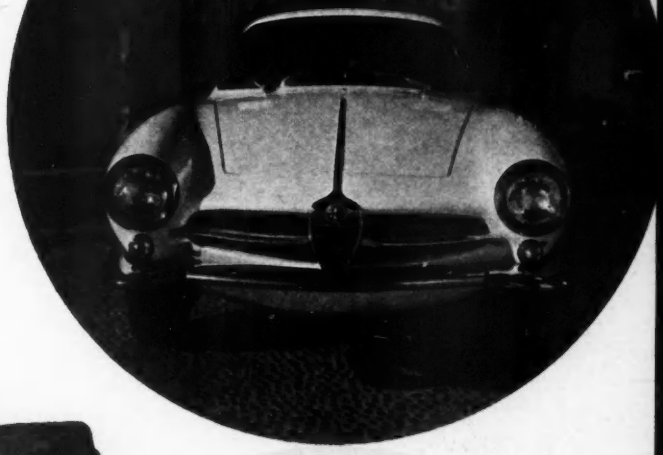
MOTOR TREND

APRIL 1961 35¢

IMPORTED CAR ISSUE

95 NEW CARS for 1961

ARE IMPORTS BETTER?



ROAD TESTS

Cadillac – Lincoln – Imperial

MOBILGAS ECONOMY RUN

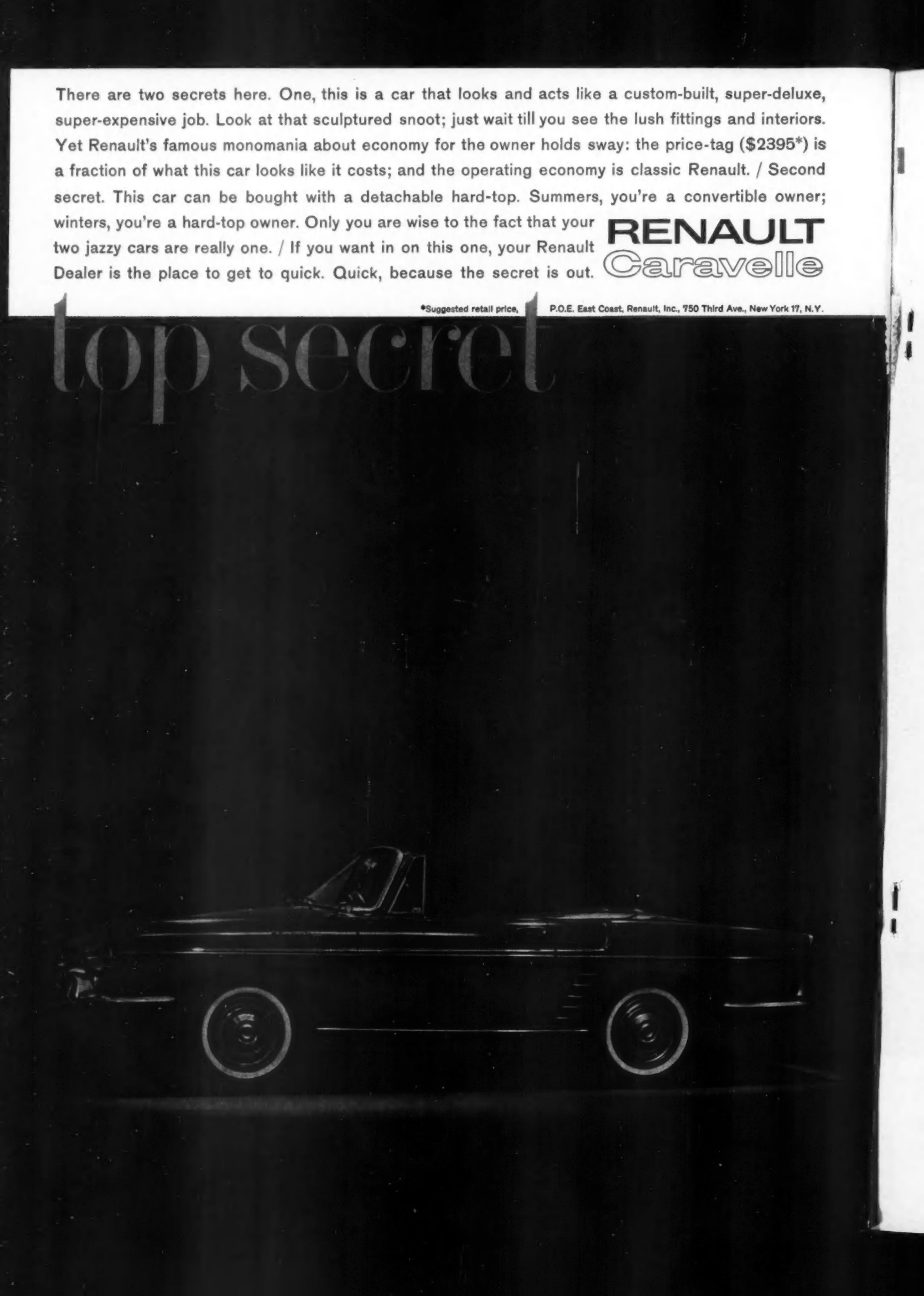
What Does It Prove?

There are two secrets here. One, this is a car that looks and acts like a custom-built, super-deluxe, super-expensive job. Look at that sculptured snoot; just wait till you see the lush fittings and interiors. Yet Renault's famous monomania about economy for the owner holds sway: the price-tag ($2395*) is a fraction of what this car looks like it costs; and the operating economy is classic Renault. / Second secret. This car can be bought with a detachable hard-top. Summers, you're a convertible owner; winters, you're a hard-top owner. Only you are wise to the fact that your two jazzy cars are really one. / If you want in on this one, your Renault Dealer is the place to get to quick. Quick, because the secret is out.

RENAULT
Caravelle

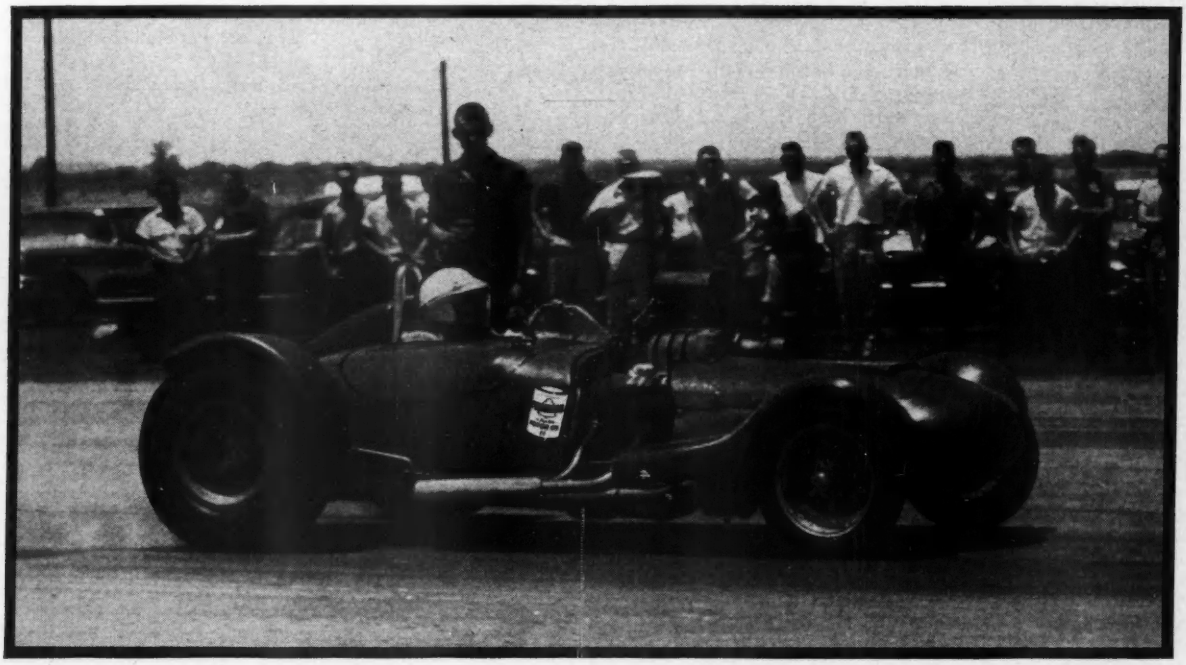
*Suggested retail price, P.O.E. East Coast. Renault, Inc., 750 Third Ave., New York 17, N.Y.

top secret



Fastest Sports Car in America

On his way to a record! L. C. Kirby of Dallas, takes off in his Italian Bandini powered by an eight-cylinder 1960 Cadillac engine with 410 cu. in. displacement.



It's fire-engine red, and as hot as it looks! This sleek Bandini hit 131.57 mph on a quarter-mile track in Amarillo. Zoomed to a record top speed of 135.33 mph with an elapsed time of 11.16 seconds on the Durant, Oklahoma, strip. And owner-driver L. C. Kirby says he is on his way to a blazing 200 mph!

These terrific speeds require peak engine performance every split second. And, like many other top drivers, Kirby depends on Pennzoil Z-7 to give his expensive racing engine the kind of full-time lubrication protection it demands.

Amazing Pennzoil Z-7 stands up under all the tremendous heat and pressure record-breaking engines can hand it. It's pure Pennsylvania oil with special power ingredient Z-7 that keeps engine parts so clean they can give peak performance *full time.*

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MOTOR TREND

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AUDITED PAID CIRCULATION ABC

This month's cover features the Lancia Flaminia, Renault Caravelle, Volkswagen, Volvo P-1800 and, at extreme right, Alfa Romeo Sprint Speciale. Full details on all current imports appear on pp. 32-73.

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"Pontiac's Tempest is the CAR OF THE YEAR" . . Motor Trend says it, Tempest owners agree!

Gas-saving 4-cylinder engine
110-155 h.p. front engine/rear transmission • independent 4-wheel suspension

PONTIAC MOTOR DIVISION • GENERAL MOTORS CORPORATION

THE EDITOR'S REPORT

BY DON WERNER

THE SELECTION of the 1961 Tempest as the "Car of the Year" in last month's issue touched off a follow-up flurry of activity by the MOTOR TREND staff. First was a press conference at which the formal presentation of the annual MOTOR TREND Award was made to Semon Knudsen, general manager of Pontiac, at center in the top photo. It was Knudsen and Pontiac's second time around at getting the "Car of the Year" trophy, the first being for the 1959 Pontiac. Presenting Knudsen the award in the photo are myself, on the left, and Robert Petersen, publisher of MOTOR TREND, at the right.

For television the MOTOR TREND editorial staff then re-enacted the deliberations that led to the naming of the Tempest for the 1961 award. The second photo here shows our managing editor, James Miller, sounding off in front of the camera, while Robert Ames, left, and I listen critically.

There is, of course, a good deal more to selecting a "Car of the Year" than what is shown here. It is virtually a six-month operation that involves careful consideration of all current-model domestic cars. The basis of the award, as most MOTOR TREND readers know, is progress in design. And the 1961 Tempest easily earned the honor with its three major design developments: the transaxle, the flexible driveshaft and new engines. /MT

Approach a pinnacle of perfection with Mercedes-Benz. The engineering and construction of Mercedes-Benz is aimed at perfection. This 300 SL for example, starts its life as an entirely hand-built spaceframe. Its tubes are cut, balanced and welded by devoted craftsmen. Its brakes and wheels are added carefully. Then its hand-welded body slips firmly over the geometric symmetry of its skeleton. Finally, its fuel-injection power plant, fresh from its test bench, is lowered into place. Then the 300 SL is road tested and checked with a thoroughness that leaves no secrets. Here, on the pavée of the Grossglockner high in the Austrian Alps, a joyful owner scorches through the mountains with the confidence only Mercedes-Benz can engender. Every Mercedes-Benz is a pinnacle of design and engineering so harmoniously blended that every drive is a refreshing and wonderful experience.

Mercedes-Benz cars include sedans, convertibles and sports cars. Prices range from about $3,300 to $13,000. Ask your Mercedes-Benz dealer for a demonstration. European delivery arranged by your Mercedes-Benz dealer at overseas prices. **Mercedes-Benz Sales, Inc.** *(A Subsidiary of Studebaker-Packard Corporation)*

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Letters

WITH DEEPEST REGRETS

Regretfully, we hear of the end of another great automotive name — De Soto. As you have pointed out, the medium-priced field is again the loser.

Why the failure of cars in this field to survive? Isn't there a market for a car that is more than just utilitarian but still not extremely expensive? Could the problem be that the cars in this field have been victimized by indiscriminate actions in the areas of sheet metal, chrome and glass?

I believe an error may be made in using somewhat the same sales psychology in the medium-priced field as is used in the low-priced field — planned obsolescence and gimmicks.

This is a field in which craftsmanship, dignified styling and lasting value should enter the picture. Simplicity in styling not only results in less manufacturing expense, but can also provide more basic beauty of design. Less frequent style changes would also reduce costs.

The resulting savings, if applied toward improving workmanship and quality, may give us a medium-priced car with a lot of appeal.

Rollo E. Lind Mountain Home, Ida.

SOME INTERESTING FIGURES

It was very interesting reading G. Ostrom's letter, "No Friend of the Working Man" (Jan. MT). The figures he provided were interesting too. However, I would like to add a few more figures to make the picture clearer on the imports.

The U.S. imports $15.5 billion a year; we export $17.9 billion a year. In 1960 alone Volkswagen purchased $26.5 million worth of machine tools for use overseas and $4 million worth of sheet steel. It currently is buying 3300 tons of sheet steel monthly.

Volvo buys between $12 and $15 million worth of products annually from 120 American companies.

Saab imports from the U.S. amount to $1 million of body steel, $4 million of parts for production of jet aircraft, $100,000 of stampings and welding machines. As distributors for Chrysler cars, Saab buys $3 million a year in cars, spare parts and accessories.

Saab exports amount to $6.5 million per year. On this the U.S. government obtains $1.5 million in import duties and excise taxes.

These are only three of more than 20 imported car manufacturers.

If we don't import goods from foreign countries, we would have to increase our foreign aid far beyond the $3.1 billion we provide currently. That would mean higher taxes, and then who would yell the loudest?

And what if all the foreign countries would say, "Don't buy U.S. products"?

If Mr. Ostrom knows a car that can come close to a Volvo PV-544 in price ($2185), economy, performance and durability, I might trade mine in.

James Russocki Trenton, N. J.

It is probably true that the sale of foreign cars has forced layoffs of people employed in the auto industry. However, the picture is not nearly as bad as Mr. Ostrom paints it.

Nearly 25 per cent of the retail price of a foreign car is import duty paid to the U.S. government and hence fed back into the American economy.

Mr. Ostrom also overlooks the fact that competition is the lifeblood of our economy. Without the impact of foreign car sales, we would not have the compact cars which Mr. Ostrom lauds. Because of this competition we are seeing increased emphasis on economy by the American auto industry, and in the future we will probably see greater quality control and stabilization of auto prices.

If people in the American auto industry are unemployed because of foreign car sales, it is not nearly so much the fault of the foreign car as it is the fault of the auto industry, which allowed increases in auto prices while quality and economy of operation decreased.

In a competitive society the product which sells the best is the one which offers the most for the money.

David Agar Middletown, Pa.

UPSIDE DOWN

Looking at page 19 of the February MOTOR TREND, I know your choice of the "Car of the Year" can't come out right.

Look at the abacus you are figuring on — you have it upside down!

A. Q. Van Benschoten, Jr. Winfield, Kan.

Obviously the upside-down abacus was an effort to conceal the then-secret calculations toward the "Car of the Year" selection.

BEST ENGINEERED?

I read with interest your editorial in the January issue, wherein you state that Chrysler products are the best-engineered cars in America.

Maybe so, from a mechanical standpoint, but I would like to ask if you ever had occasion to work on them in the average service station.

Have you had to tackle such things as the power booster for the brakes, mounted over the top of the cylinder,

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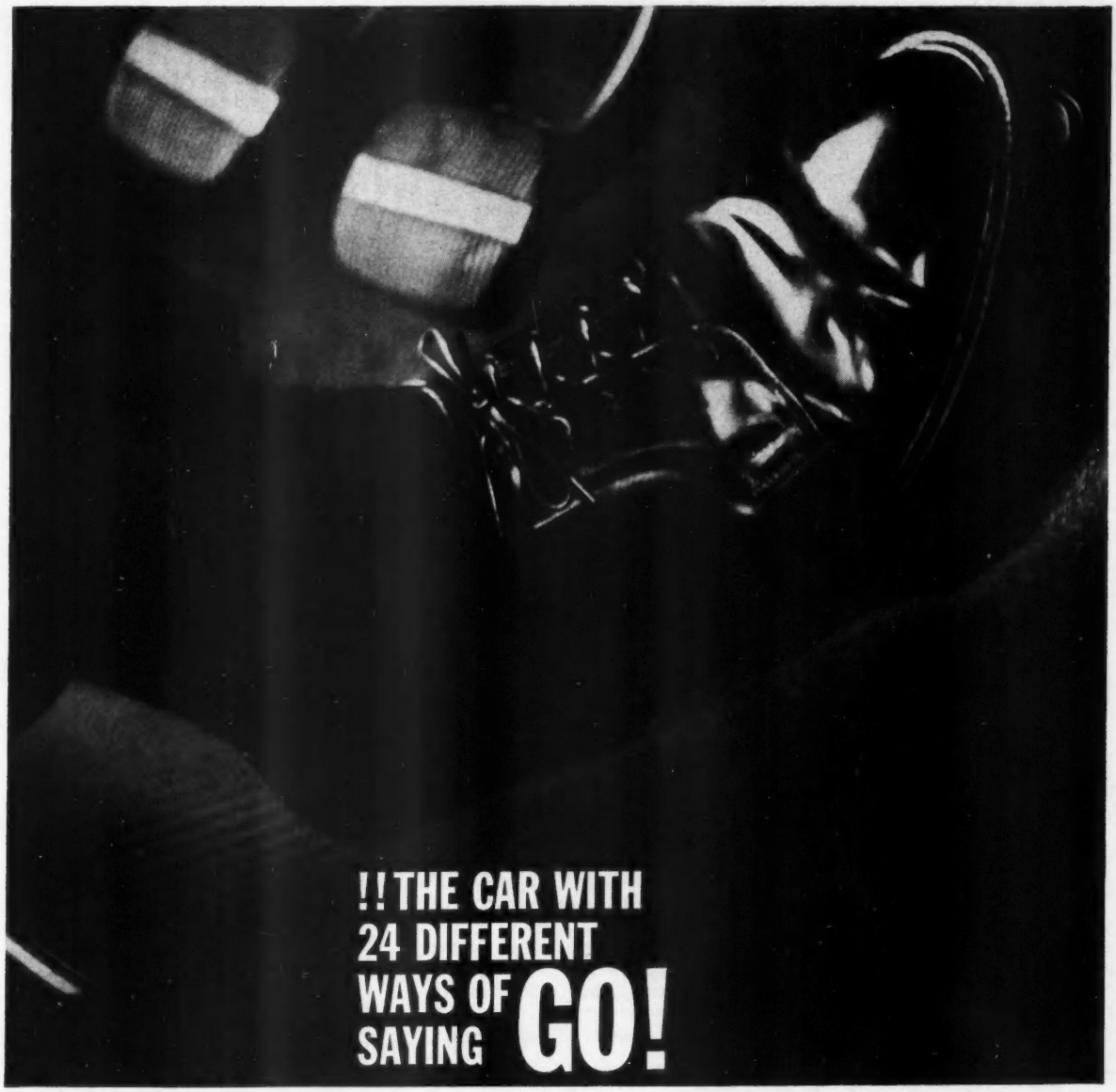


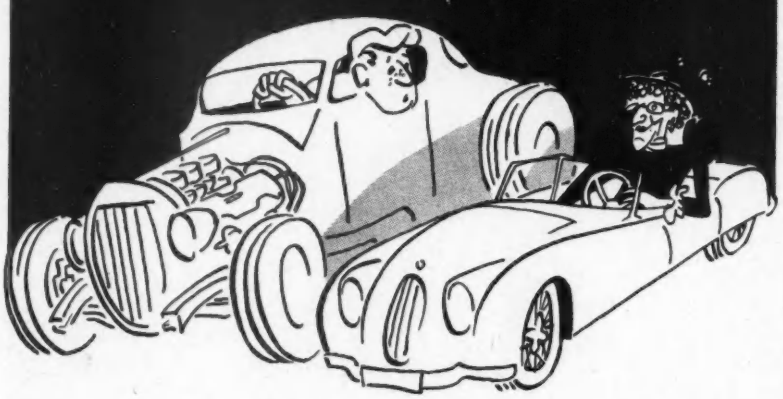
No other car going's got a choice of power teams like this new Chevy! A full two dozen engine-transmission hookups to get your foot into. Eight engines, 6 or V8. Five transmissions, automatic or stick shift (including 4-speed). You'll find the combo for you, for sure.

You can torque-tailor your Chevy to your type of going with any one of 24 power teams. Engines as thrifty or as high-spirited as you want. From standard 6 or V8 on up through six other robust V8's* —power to please the most demanding driving foot! Transmissions? A choice of standard 3-speed Synchro-Mesh stick shift and four options*—4-speed manual, Powerglide, Turboglide or Overdrive. (And both stick shifts have new gear ratios performance-matched to the engine you choose.) Just pick your kind of go and you can put it in any one of Chevrolet's 20 models for '61. Whatever you choose, with Chevy's Full Coil Jet-smooth ride, you'll go in comfort you can't match anywhere else at anywhere near the price. . . . Chevrolet Division of General Motors, Detroit 2, Mich. *Optional at extra cost

CHEVROLET

TIMES HAVE CHANGED

That little old lady from Pasadena drives differently today



Since World War II car engines have changed greatly and so have driving conditions. Today's high output engines must have piston rings designed for today's wide range of driving; rings that will insure peak compression and positive oil control whether idling in traffic, fast accelerating or high speed cruising.

Don't take a chance, ask for **Grant**

triple-torque

Rings

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Letters

continued

making it next to impossible to check the brake fluid; spark plugs, which are a problem to remove on all the Eights; fuel pump, coil, distributor and oil filter all mounted on the low side of their Slant Sixes? Just try to remove the oil filter without losing some skin and your religion.

All these jobs can be done, and, of course, the public must pay for it. Let's have more forethought and less afterthought in our engineering.
W. E. Bartelt

CITROEN TESTIMONIAL

I greatly appreciate your fine report on the Citroen wagon in the February issue. This little-known car deserves more notice than it receives. It really is an outstanding car for absolute comfort, economy and reliability.

You mentioned the car's ability to adjust its road clearance, but dismissed it as being of little importance in most areas of the U.S. This feature *is* important.

Two years ago, we received a heavy snow on top of a 14-inch snow, that soon crusted with an icy coat. My good Chevrolet, with snow-grip tires, could not take me two miles to work. My son, in his Citroen, with a large family, went 800 miles through the snow with no trouble at all. The front-wheel drive pulled the car straight and true over stretches of Colorado mountain slick sheet ice, and the added clearance let him get through the crusted snow and blown drifts.

We who have driven one are all enthusiastic over Citroen.
E. J. Garretson Albuquerque, N. M.

STYLING VS. SAFETY

An inventor of electronic traffic control devices insists that auto manufacturers are *not* interested in safety, because accidents increase the sale of new automobiles. Silly? Of course!

But consider this: Oldsmobile stylists either forgot about safety, or they seldom drive in darkness — otherwise, why *hide* the head- and tail lights?

Under certain night conditions many cars approaching from the side cannot be seen, except for the tail lights, which during the recent years (and for this I give credit) were boldly projected, and therefore readily visible from any angle. Shrouding or sinking the headlights now adds greatly to this problem.

That styling should be favored over basic safety principles is tragic, in view of our shameful accident and death record on the highways. Because of the concerted efforts being made by public officials to reduce our traffic toll and to

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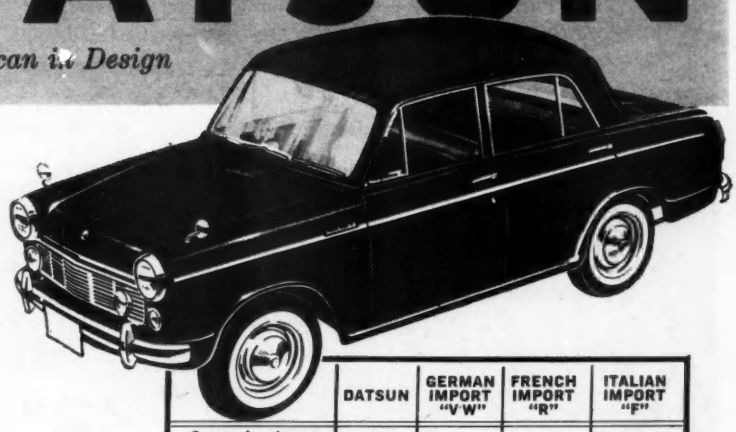
MONTH AFTER MONTH... MOTOR TREND REPORTS ON THE AMAZING ECONOMY OF THE SENSATIONAL

DATSUN

American in Concept . . . American in Design



Costs less to buy . . . costs less to run . . . yet DATSUN gives you more than any other imported car selling at anywhere near its low, low price. It is bigger, heavier, more powerful, faster, more economical, safer, more comfortable, stronger. You get 38 honest miles to the gallon. See, test-drive, compare Datsun for yourself. We'll rest our case on *your* opinion!

ONLY DATSUN DARES TO COMPARE!

Datsun lays it on the line. Let's state *facts*. Let's stack Datsun up against its competition. The chart tells the story . . . Datsun's Bluebird Sedan against comparable models.

	DATSUN	GERMAN IMPORT "VW"	FRENCH IMPORT "R"	ITALIAN IMPORT "F"
3-speed column mounted gearshift	YES	No	No	No
CYLINDERS	4	4	4	4
HORSEPOWER	48	41	32	28
TOP SPEED	77	68	75	64
WHEELBASE	89.8"	94.5"	89"	78.5"
LENGTH	152"	160.6"	155"	130.5"
WIDTH	58.9"	60.6"	60"	54.25"
HEIGHT	58.3"	59.1"	57"	55.25"
WEIGHT	1916	1609	1397	1400

SOURCE: Mfrs. own specifications

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Letters
continued

promote safety, it's inconceivable that any modern auto would be produced without considering and embodying every possible safety factor, within reason.
Allan Boz Chicago, Ill.

MIX AND MATCH

Congratulations to General Motors! After many years of turning out some of the crummiest sheet metal ever to leave Detroit, they have finally designed some good clean-looking cars.

The only trouble is that, somewhere between the designers' studio and the dealers' showroom, things got crossed up. If they would follow these instructions, the mess would be cleared up.

1. Take one each — Chevy, Pontiac, Olds, Buick.
2. Carefully saw each one in half.
3. Re-assemble cars as follows: a) Front end of Pontiac and rear end of Chevy. b) Front end of Olds and rear end of Chevy. c) Front end of Buick and rear end of Olds. d) Front end of Chevy and rear end of Buick.

Now the front ends match the rear ends, which is the way they were probably intended in the first place.
D. W. Walters Vancouver, B.C., Canada

WHAT HAPPENED?

What happened to the "Know Your Car" series?
Dean Kendall Laguna Beach, Calif.
It will keep appearing at selected intervals in MOTOR TREND.

INADEQUATE

Your Volkswagen road test was very thorough, but I wish you had made some comment on the heater and defroster.

I own a 1961 Volkswagen sedan, and the heater and defroster are inadequate. When the temperature goes below 15° the heat is simply not sufficient. My right leg gets pretty well chilled. Even when driving the car at a high rpm the heat is not good. It is even less efficient when the car has to be kept at a lower rpm, such as driving in traffic.

The defroster does not supply enough heat to the windshield to keep snow and sleet from accumulating. In the summer time (on a rainy day) the defroster will remove some of the fog on the inside of the windshield, but not without supplying the passengers with unwanted heat.
Raymond Olsen Greenwood Lake, N.Y.

PESSIMISTIC ODOMETERS

James E. Potter's article, "Beware — the Optimistic Odometer," states that with *domestic* cars odometer error is the rule rather than the exception, and that the error "invariably" is optimistic. I

continued on page 14

SPORT OR SPECTATOR . . .

THERE'S A TEST-PROVED FIRESTONE TIRE FOR YOU. Whether you're in the race or on the sidelines, Firestone's got just the tire for your import—however and wherever you drive it. In competition? The *Super Sports 170-T* is your number: special racing tread; tough nylon cord. Spectator? You'll like the *DeLuxe Champion* for its 36% mileage bonus, extra stopping power and quiet ride. Both are performance-proved in Firestone's annual 425-million-mile test program—the program that's helped develop these two important Firestone advantages: (1) Firestone Rubber-X-101, longest-wearing rubber ever used in Firestone tires; (2) Firestone Safety-Fortified cord. For the kind of driving you like to do, get test-proved Firestones for your import soon. Buy them, on convenient payday terms if you wish, at your Firestone Dealer or Store.

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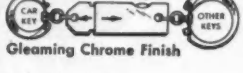

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continued

suggest he look up the word "invariably" in a dictionary.

I suggest also that he look in the same issue of MOTOR TREND (Jan. 1961) in which the Potter belch appeared. In that issue he will find an article giving the results of testing two 1961 Ford V-8's and two Chevrolet V-8's. One Chevrolet had *no* odometer error whatsoever. The remaining three cars had odometer errors, *but all* these errors in all three cars were the direct opposite of what Potter would have you believe. In other words, these three cars give more mileage than their odometers indicate. And incidentally, the two Fords had speedometer error the direct opposite to what Potter terms "optimistic." In other words, these two Fords give better performance than their speedometers indicate.

It may come as a complete shock to Potter that Ford and Chevrolet are domestic cars. It is also a fact that the Ford Motor Company and GM Corporation account for roughly 75 per cent of the domestic cars sales in the United States.

It is also worth noting in this January issue that road tests of two foreign cars (Borgward and Datsun) showed both foreign cars had optimistic odometer error.

John E. Zimmermann Allendale, N.J.

THE HORSE BELONGS IN FRONT

I would like to ask whether the people who criticize front-wheel drive have ever driven one, much less had the pleasure of owning such a vehicle.

I was the proud owner of a Cord for five years, during which I experienced the thrill of being pulled instead of pushed around curves, of being able to go through snow where others were forced to use chains, and no hump in the floor at all.

I sincerely hope that Ford brings back front drive, as I should like to have the horse back in front of the carriage once more, if for no other reason than having a long hood to look over.

Ray B. Smith Indianapolis, Ind.

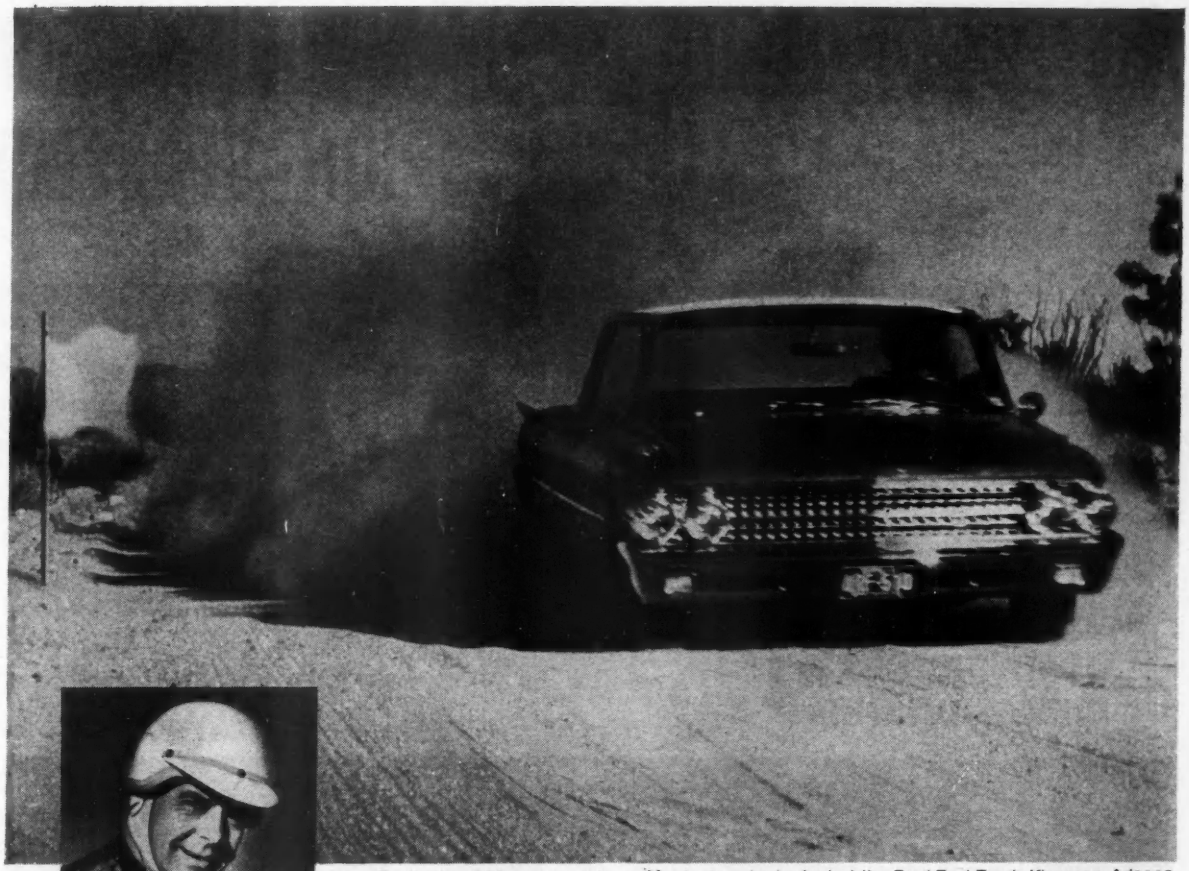
EVERY FAMILY SHOULD HAVE ONE

I enjoyed very much the article on the King Midget in the January issue, as I have a 1954 model that I drive as a second car.

Aside from the little gas and oil it uses, the total upkeep in six years, I believe, has been less than the price of just one tune-up on a large car.

With the possible exception of my very first automobile, I have enjoyed the King Midget more than any other car I have owned. If everyone knew how

continued on page 18



Darlington 500 winner Johnny Mantz does brake test at the Ford Test Track, Kingman, Arizona.

Test Driver Johnny Mantz proves it for himself!

STOCK CAR ACE HALTS NEW FORD FROM 115 MPH. IN 11 SECONDS!

" We're at Ford's Arizona Proving Ground. My assignment – to wind up a big new Galaxie to one-one-five ... then lock up the anchors on a panic stop. I move away from the line ... then mash down and the needle jumps like a jet's altimeter. The car feels strong – real strong. Then bang! I'm on those big brakes and the Ford and I are fighting g's. In eleven seconds, I'm stopped – no pull – no fade – just straight-line deceleration. Man, this new Ford's got goin' and slowin' like nothing else! And it's built to take care of itself ... even adjusts its own brakes, automatically."

Johnny Mantz

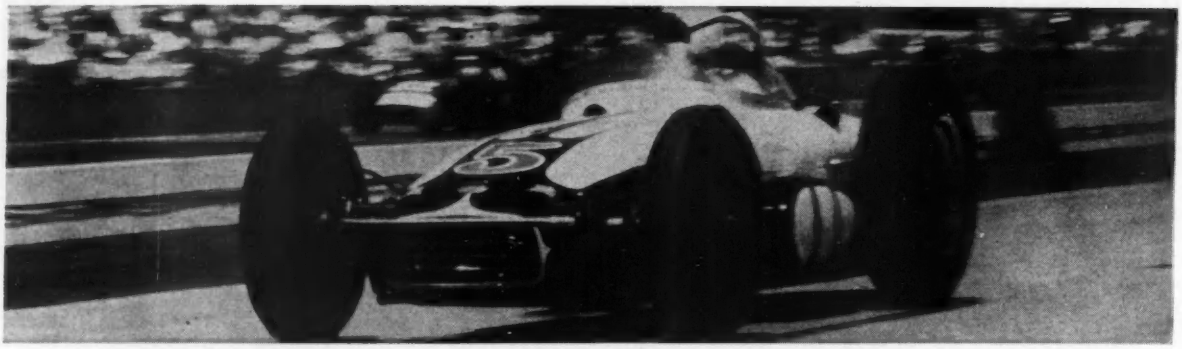
THE '61 FORD!

BEAUTIFULLY BUILT TO TAKE CARE OF ITSELF!

FORD DIVISION, *Ford Motor Company*

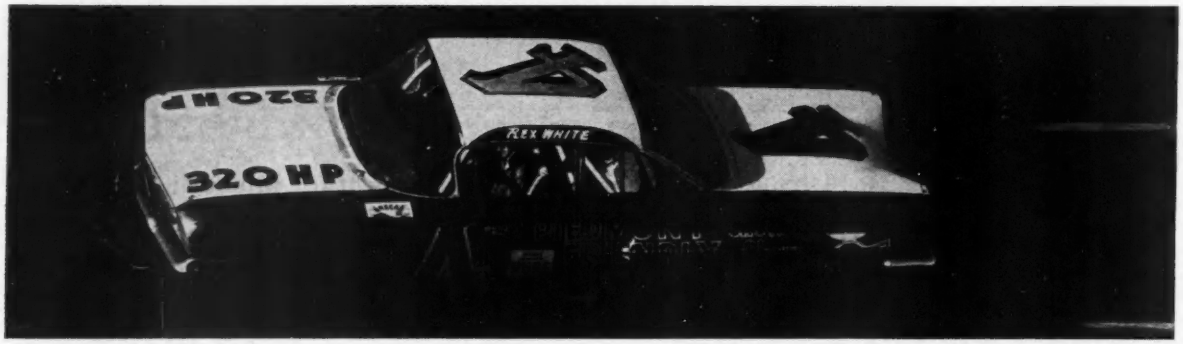
THE RESULTS ARE IN! AGAIN IN 1960....

RACING'S TOP HONORS GO TO OF CHAMPION-SPARKED



USAC 'BIG CAR' CHAMPIONSHIP

The right to paint the coveted number "1" on his car during the 1961 season was won by A. J. Foyt, who captured the crown of the United States Auto Club's 1960 "Championship Trail" with his Champion-equipped Bowes Seal Fast Special.



NASCAR CHAMPIONSHIP

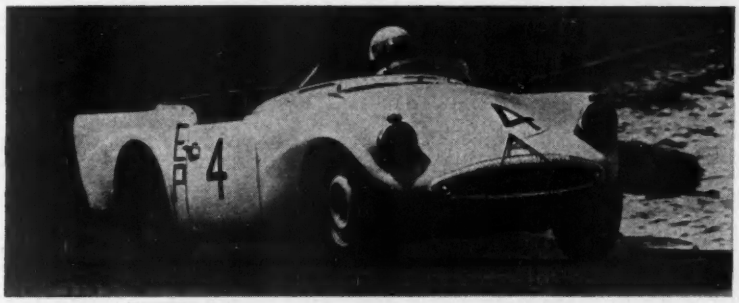
Racing the famous Daytona to Darlington circuit, Rex White slammed his Champion-equipped '60 Chevrolet to 1960's top honors for the National Association for Stock Car Automobile Racing.

USAC STOCK-CAR CHAMPIONSHIP

Racing all season in his Champion-sparked Zecol-Lubaid '60 Ford, Norm Nelson piled up wins and points that made him the 1960 champion of the USAC stock car circuit.

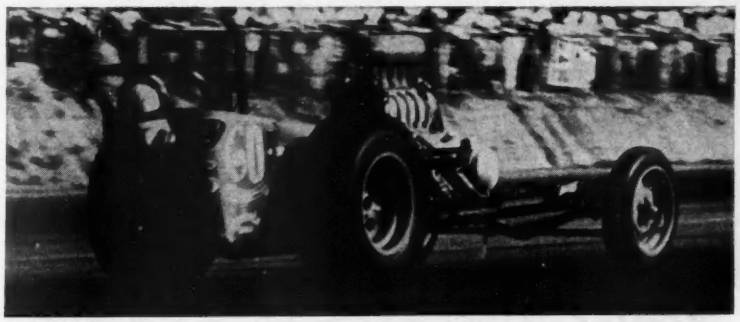
DRIVERS CARS!

One of the best ways of judging performance comes at the end of the racing season, when the championships are decided. The outstanding performance of Champion spark plugs is proved again by the fact that virtually all major 1960 racing crowns were won with Champion-equipped engines . . .



SCCA POINT LEADER

Duncan Black, driving his E-Production, Champion-fired Daimler, scored the highest number of championship points in any of the 17 classes in the Sports Car Club of America competition in 1960.



NATIONAL DRAG CHAMPIONSHIPS

The 1960 National Championship Drag Races saw Leonard Harris take the big title—Top Eliminator—with the Champion-fired Albertson Olds. Champions also sparked Middle, Street, and Stock Eliminators . . . plus 25 of 35 competition-class winners.

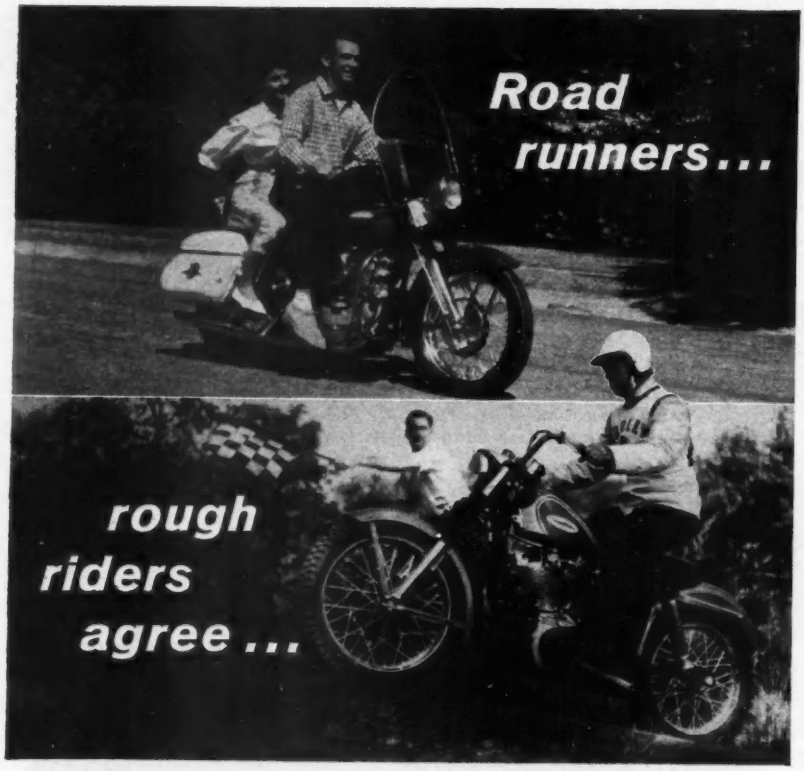
MARC NEW-CAR CHAMPIONSHIP

The 1960 champion's crown for the New Car Division of the Midwest Association for Race Cars went to Nelson Stacy, who earned his title racing a Champion-equipped 1960 Ford.

Here's further evidence to prove that every engine does its best with Champion spark plugs. Whether you're interested in setting up a car for competition, or just in securing top all-round performance from your family car, be sure to pick the plugs the winners use—Champion spark plugs!

DEPENDABLE
CHAMPION
SPARK PLUGS

CHAMPION SPARK PLUG COMPANY • TOLEDO 1, OHIO



NEW HARLEY-DAVIDSON SPORTSTERS

pack power to spare to meet any challenge

Hop on a Harley-Davidson Sportster, hop up to a new high in motorcycle performance. Both Sportster models pack all the power you need to get out in front—*and stay there!* The Model "H" is hot for the road, the Model "CH" burns up the course in drags, scrambles, trials, enduros.

Harley-Davidson Sportsters give you top mechanical efficiency from the word go: custom cams . . . hi-dome pistons . . . lightweight tappets . . . ported heads . . . jumbo valves are just a few of their features.

Jet-silhouette styling gives the Model "H" and Model "CH" plenty of eye appeal. See your Harley-Davidson dealer for complete details, or write for illustrated literature.

HARLEY-DAVIDSON MOTOR CO.
DEPT. MT, MILWAUKEE 1, WISCONSIN

AT LAST!

A PERMANENTLY INSTALLED CONSTANT VOLTAGE BATTERY CHARGER

THE 'CONSTACHARGER'

FEATURES
- PERMANENTLY INSTALLED
- CONSTANT OUTPUT CHARGING RATE FROM VARYING INPUT LINE VOLTAGES
- POSITIVE MAGNETIC OUTPUT SHORT CIRCUIT PROTECTION
- NEVER ANY DANGER OF OVERCHARGING
- RECTIFIER CANNOT BURN OUT BECAUSE OF MAGNETIC SHORT CIRCUIT PROTECTION EVEN IF WIRE CONNECTIONS TO THE BATTERY CIRCUIT ARE REVERSED
- FASTER CHARGE BECAUSE OUTPUT CHARGING RATE REMAINS CONSTANT WITH VARYING INPUT LINE VOLTAGES
- THOROUGHLY INSULATED TO AVOID SHOCK FROM CHARGING WIRES
- NO MOVING PARTS
- NO RADIO INTERFERENCE

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INSTANT STARTS EVERY TIME! NEVER A DEAD BATTERY!

FREE OFFER! WITH EVERY ORDER!
20 FOOT REEL IN LINE CORD—A $9.95 VALUE

DATA ON LARGER SIZES AVAILABLE ON REQUEST

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Letters

continued

handy and inexpensive these little cars are, almost every family would have one.
C. D. Conrad — Canton, Ohio

V-8'S FOR JEEPS

I have wanted to install a V-8 in my Jeep for some time. Could you advise me as to which engine is most easily adaptable, and where I might get an adapter housing?
Elmo L. Roylance — Kaysville, Utah

There are several V-8's that are practical to install in a Jeep. For the models and conversion kits available, write Hoosier Machine Products Co., 314 S. E. Sixth St., Pendleton, Ore., for their sales brochure.

DE-SOUPING UP

This request for information is probably something of a switch for you. Will you advise me how to de-tune my car by using a smaller carburetor?

I drive a '59 Ford Galaxie, in which the manufacturer placed a T-bird 352 Special V-8, for which they claim 300 hp. I get 15 mpg on the road and about 12 in town.

I am willing to accept considerably less performance for greater economy. Most of my driving is in town, and I'd even settle for a top speed no greater than 70 mph.

Someone suggested I disconnect the rear barrels.
Cameron Kepler — Dayton, Ohio

Disconnecting the two rear barrels of your four-barrel carburetor is a rather pointless procedure, since they will have no effect on your fuel consumption if you conscientiously strive for economy. The rear barrels or secondaries, as they are commonly called, never open unless the engine is turning at high rpm and the throttle pedal is near the floor.

The majority of all gasoline consumption complaints stems from a "heavy" right foot. The make, design or size of the carburetor has very little to do with 999 out of 1,000 complaints. Rapid acceleration is responsible for the large-sized gasoline bills that are currently so prevalent. The fuel used to accelerate an average large automobile from 0-to-60 mph at full throttle will propel the car for approximately one mile at a constant 40 mph, whereas this same quantity of gasoline is good for only one-tenth of a mile while accelerating.

POWERFUL SIX

I've been looking in your magazine for ideas on how to get more power from my 1960 six-cylinder Chevrolet. So far, none of the articles have covered that subject.

continued on page 20

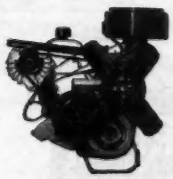
1961 Lancer

The best thing that ever happened to the 6-cylinder engine

When Chrysler Corporation developed the new Economy Slant Six Engine, they set it at a 30° angle for good reason—a bigger manifold system. This new design provides freer breathing, helps give you 20% more "go" on 15% less gas than our previous sixes.

A new, lightweight, 3-speed automatic transmission, the TorqueFlite Six, designed especially for the Economy Slant Six, gives the added pep of a torque converter, plus the smoothness and economy of a third forward speed.

This new engine and new transmission are available in Plymouth and Dodge Dart models, with smaller versions in the Valiant and Lancer. Let a drive bring out the difference great engineering makes.



The secret is in the slant *A 30° slant allows for a more efficient manifold. Helps this engine put out 20% more go than any six we had before, and on 15% less gas.*

Chrysler Corporation

Serving America's new quest for quality

PLYMOUTH VALIANT • DODGE DART LANCER • CHRYSLER IMPERIAL

BARDAHL
ADDITIVE MOTOR OIL
WORLD'S NO. 1 SELLER
* REDUCES FRICTION
* INCREASES POWER
* FREES RINGS AND VALVES
FREES AND QUIETS VALVE LIFTERS
"He wants to drag race you, Mister, but I'm warning you he uses BARDAHL."

Letters
continued

Do you know of any way I can produce more power?
Richard Radigan Cincinnati, Ohio

The articles you have been looking for are non-existent, because people who want power buy big V-8's. If you are power-conscious, why didn't you purchase a V-8 instead of a little 235-cubic-inch Six?

If you plan on hopping up the Six so that it will compete with the V-8's, you can be prepared to spend more money than it would cost to trade in your present car on one with a bigger engine. The only excuse for wasting money on hopping up the Six is sentimentality, unless you will be contented with a very mild improvement in performance. If an eight per cent boost in power will suffice, a head milling job is recommended.

KNOCK, KNOCK

I have a '58 Ford station wagon, equipped with 332-cubic-inch Interceptor V-8. I seem to have a knock in my engine, similar to a spark knock, when accelerating in city traffic. At the same time there is a cloud of oil coming out of the exhaust. When the ping or knock stops, the oil stops coming out of the exhaust. On the highway it performs great.

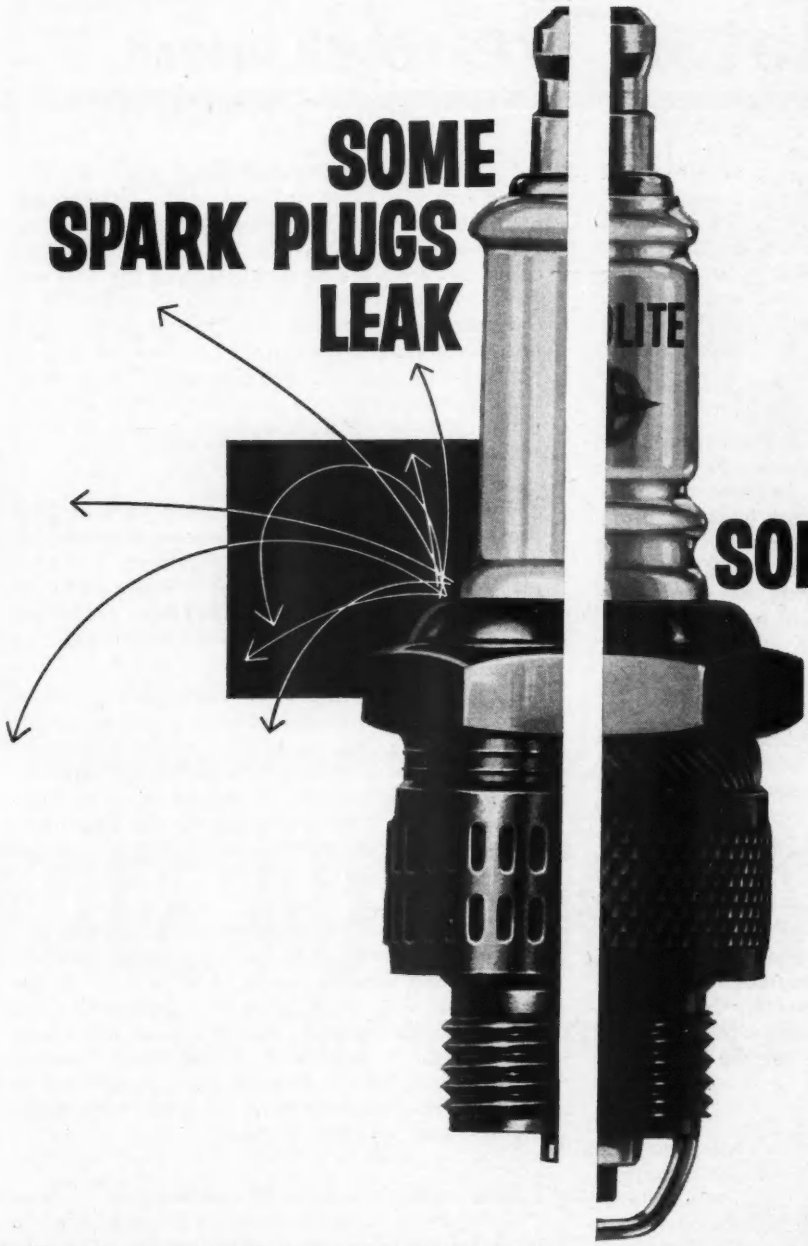
I have tried all kinds of gasoline, regular and ethyl, I had the timing checked, put in new spark plugs and had the carburetor checked.
Dennis Schmick Oskosh, Wis.

The emission of oil smoke whenever the engine knocks indicates that detonation exists. The smoke is produced by cracking the lubricating oil that exists at the top of the cylinder bores and on the pistons. During detonation, there is a momentary temperature rise that is higher than the vapor point of cast iron so the oil is converted to higher hydrocarbons and hard carbon. After the conversion, the higher hydrocarbons burn.

Since detonation is quite evident you can be sure that the engine is receiving too much spark advance during acceleration. Either the distributor is set for too much initial advance or the diaphragm advance mechanism is not functioning properly. The diaphragm is supposed to reduce the amount of spark advance whenever the throttle is depressed far enough to reduce manifold vacuum.

The tune-up man at your local Ford agency can check out the advance mechanisms of the distributor by removing the unit from the car and testing it in a distributor machine. His service manual will provide the specification to check against.

SOME SPARK PLUGS LEAK



SOME DON'T!

Problem: Some automotive spark plugs leak. Even when new. They leak because the insulator is not perfectly sealed to the outer steel shell. And this leakage, as you might expect, does nothing to improve either your gas mileage or your pick-up and performance.

How can you avoid buying spark plugs that could leak? Simple. Just look at them before you buy. Appearance tells you a lot about how the plugs were sealed. Take the shiny plugs you may have seen on your dealer's shelves. Most of these shiny plugs are sealed with powered talc. They're not guaranteed against leakage.

They are not acceptable for severe military service. What other kind of spark plug is there? The blue kind. The kind Autolite makes. In these plugs, the shell is sealed to the insulator under tremendous heat and pressure. Autolite guarantees every plug against leakage. We also sell many thousands of them to the military.

Suggestion: There are two ways to make sure your next set of spark plugs does not leak. Take a good look at them before you buy, or, easier still, simply insist on Autolite. We make a set to fit almost anything with wheels. Remember, the color is blue. the name is Autolite.

AUTOLITE.
SPARK PLUG DIVISION • TOLEDO 1, OHIO

Motor Trends

Up go the horsepower ratings of the Buick Special and Oldsmobile F-85 compact V-8's. Both have made optional engines official, as predicted in MOTOR TREND. The F-85's is a 185-hp option, with 10-to-1 compression ratio, for buyers who prefer it to the 155-hp standard engine, at a factory retail price of about $45. Buick's Special has same 185-hp rating, with 10.25 compression and four-barrel carburetor.

Look for Chrysler Corporation's alternator, now on all its lines of cars, to be widely imitated. The unit is a highly functional improvement and increases electrical power supply to offset drain of accessories, cold-weather starts, excessive night driving, etc. A number of non-Detroit electrical manufacturers are hurrying into production with alternators for the other car makes.

Look for a two-door coupe to appear in the Tempest, Special and F-85 lineups, which now consist only of four-door sedans and station wagons. The three will use same body shell on 112-inch wheelbase — but this body will be entirely different from the current Corvair coupe — with the roof going straight back to a lip over the large rear window. First versions will be out this spring.

Buick has followed Olds and Pontiac in cancelling aluminum engine tooling programs. All three makes were preparing new engines in the 350-cubic-inch range for 1963 models. Casting and machining difficulties, more severe on large engine blocks, were the reasons for the decision to halt development.

The continued success of Volkswagen has caused Ford Motor Company to decide definitely to go ahead with its smaller car, the Cardinal. This all-new car, on a 90-inch wheelbase, will appear in October as a 1962 model. Engine is four-cylinder, water-cooled and mounted in the front. Some components will be made overseas.

The status of smaller small car programs at Chevrolet and Studebaker are less certain. Chevrolet is believed to still be waiting before making a final decision. Studebaker is said to have postponed further work on its tooling for a 1962 model compact on a 95-inch wheelbase.

Ford will have a brand-new 221-cubic-inch high-performance compact, but cast-iron, V-8 for its 1962 models. Production of the older 292-cubic-inch has been stopped (although enough of these units probably are on hand to equip the rest of the 1961-model run) so that the facilities could be converted to production of the new engine. It is presumed this engine is destined for the shorter versions of the 1962 standard Ford line — although its use in the Falcon-Comet compacts should not be ruled out, since Ford needs a V-8 compact badly to offset the General Motors, American Motors and Studebaker smaller cars so equipped.

Two-ply tires for compact cars may be a solid prospect. Firestone has announced development of such tires after two years of rumors. The two-ply tires are said to be lighter, slightly softer in ride and less costly. Firestone has been producing this type of tire for small imports since 1955.

Chrysler continues to roll along with its development of an air-cooled aluminum V-4 engine of less than 100 cubic inches. This engine is believed to be intended for a smaller small car of approximate Volkswagen dimensions. The program is not being rushed, however, since Chrysler prefers to see what its competitors — and car buyers — do before going too far.

What will the European manufacturers of cars imported into the U.S. do to compete with the forthcoming smaller small cars now in design studios of GM, Ford, Chrysler, Studebaker and AM? Informed sources expect all-new models by 1962 from Volkswagen, British Ford, Morris-Austin, Fiat, Simca, Renault, etc., in addition to spotty price readjustment of cars with these names now on the market.

Chevrolet is expected to announce soon a new "super sports" Impala series, equipped with the new 360-hp high-performance engine. The new series will feature luxurious upholstery and trim, bucket seats, optional four-speed gearbox, heavy-duty brakes and suspension, and an even wider range of optional rear-axle gearing.

An association of glass dealers has just issued a press release blasting car makers for what, the association claims, has been a quiet and unannounced switch from safety glass in side windows to plain tempered glass. The association contends that laminated safety glass, required by law in windshields, has been used in side windows until two years ago. Now it is being abandoned.

Rambler Dares to Give the Facts Including Prices on the '61 Cars

1961
X-RAY
Checks Today's ECONOMY COMPACT CARS On The Basis Of Unfairness To The User
Checks Today's LOW-PRICED CAR FIELD On The Basis Of Unfairness To The User
Checks Today's LUXURY CARS in a LOW-PRICED FIELD On The Basis Of Unfairness To The User

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Never before have there been so many claims and counterclaims about new automobiles as there are today. How can you separate fact from fiction? Which cars actually offer the best features? Which are really lowest priced? Which give best performance, economy?

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THE MOBILGAS ECONOMY RUN

BY DON WERNER

What does the run prove about the gas mileage of the 1961 cars? Here is an easy analysis of the cars, the driver techniques, the route and the results

THE ANNUAL MOBILGAS ECONOMY RUN is basically a simple affair. It is a contest in which cars representing nearly every domestic make are driven for a considerable distance, with a careful record kept of the amount of gasoline used by each individual car.

The 1961 economy run, for instance, takes the cars from Los Angeles to Chicago, over about 2500 miles of main highways, via Tucson, Roswell, Dallas, Little Rock and St. Louis. It is a good route for a test of fuel economy.

There is, however, an element of confusion that always attends the economy run. What many casual observers don't understand—and it is quite understandable that they do not—are the results. When the average number of miles-per-gallon achieved by each car entry is announced, it generally is a much better average than most drivers ever realize from their own vehicles.

So there is a natural reaction. There are a lot of people openly skeptical of the economy run who regard the mpg figures as a gigantic deception perpetrated by the car makers and their allies. Others, who take the results of the economy run too literally, develop into disgruntled car owners and descend in droves upon car dealerships and garages and demand an explanation from harried service managers and mechanics why their cars fail to yield similar fuel economy.

Such people are extremists and they all suffer from a common misunderstanding of the economy run. For them a clarification is in order; for others, certain basic information will aid them in evaluating the results of the run and applying the data to their own situation.

On the following pages, therefore, is a report on the economy run and its conditions. With all this essential information in mind, the results of the run can be better understood and meaningful.

One point should be stressed first. The Mobilgas Economy

Run is an excellent demonstration of the fuel economy *potential* in the competing cars. The run is organized with near perfection and rigidly and impartially supervised by officials of integrity and long experience. The chance to cheat successfully is remote. The cars are not modified. The route is as strenuous as any average motorists would undertake in cross-country travel, with no effort to lay out a course that would show the cars at their best. To put it bluntly and briefly, the economy run is honest and on the level.

In considering the results, there undoubtedly is too much importance attached to what makes of cars win in the various classes. It's an old American tradition to make a hero out of the winner in anything, but the real value of the economy run is too obscured by this exclusive attention to the winning cars. Which cars place first in the various classes and in overall fuel economy is secondary to the magnificent panorama the run affords of the mpg averages of all cars under the identical conditions. The run places all the competing cars in a fairly accurate fuel economy relationship. This relationship, as relationships inevitably are, is not always conclusive, but the general pattern that emerges from the economy run is correct and can be accepted with relatively few exceptions.

Three major factors of the economy run need to be understood in order to begin to appreciate the results. Each of these factors is dealt with in detail on the following pages.

First and properly foremost are the cars. Since they are the reason for the whole affair, we need to know certain basic facts. The supervising officials select them from routine production and require that they be equipped with normal factory options. Then there is the preparation of the cars, also under supervision, in accordance with factory specifications. All this needs to be clarified so that reasonable comparisons can be made.

Then there is the route. It is the same for all the cars in the economy run and, therefore, it is not a significant influence in what cars win the various classes. But the route is of major importance in measuring the average mpg of each competing make against the kind of fuel economy a car owner can expect in his own situation. So the route needs to be understood topographically and in its traffic and weather characteristics. It is possible, for instance, for strong winds to be a greater variable than heavy traffic or steep mountain grades.

Finally there are the drivers and the role they play. It is perfectly obvious that anyone bent on achieving maximum fuel economy does not drive in a normal manner. Yet the conditions of the run are cleverly adjusted to this and are so designed that drivers are forced to maintain an uneconomical pace. The degree of difference in driver techniques is important to know, again for comparison purposes.

If these three major factors are considered, then the ultimate objective may be attempted—an evaluation of the results. Yet they cannot even begin to be interpreted without reference points, the background of earlier results against which the 1961 economy run figures must be studied.

If the number of people interested in a contest between cars is any measure of merit, the annual Mobilgas Economy Run probably ranks as the world's most important. It successfully straddles the line between a sporting event and a straightforward report of product testing. And it turns out to be a good example of both.

THE CARS IN THE ECONOMY RUN

by Barney Navarro

WINNING AN ECONOMY RUN requires somewhat the same relationship between man and a mechanical device as that found in a marksmanship contest. The best rifleman that ever lived would make a below-par showing with a faulty rifle and inconsistent ammunition. Conversely, the best rifle in existence would never demonstrate its maximum quality in the hands of a poor marksman.

An economy run entry is as much aware of the relationship between himself and his automobile as the marksman with the rifle. He realizes that he must understand, as fully as is humanly possible, the inherent characteristics of the machine that will take him into the winner's circle. He must learn how to operate the car in the most efficient manner prior to the start of the contest by studying a duplicate of the car to be driven on the run. No matter what his previous experience might be, each year he must go through a similar routine with a test car because of changes in factory specifications.

Every automobile possesses variations in a number of specifications that affect its fuel consumption rate. Some cars' specs give them a slight advantage over other machines, so barring mishaps, it might be said that they are predestined to be winners if driven properly. Factory engineers, being very conscious of the importance of economy runs, make a strong effort to incorporate a number of economy-inducing specs into each automobile. Nevertheless, they are quite often hampered by their inability to change an engineering policy that is part of a particular make's established "personality." A car that has had as a selling point a certain type of transmission for a decade won't be subject to a change to improve economy slightly if the car manufacturer feels that the gearbox has been responsible for the car's sales success.

When examining the specifications that affect economy, it is necessary to appraise them in terms of how they affect the efficiency of operation. An unenlightened analysis of published spec sheets can quite often be misleading. Many specifications cannot be analyzed singly but must be related to others in order to get a correct interpretation. Compression ratios make a good example; it has been common knowledge for many years that the higher the compression, the lower the fuel consumption. Other things being equal, the foregoing rule can be considered true, but we make a grave mistake if we assume that an engine's 11-to-1 compression ratio will make it a cinch winner. Compression pressure, a figure that never appears on the spec sheet, is the all-important factor. An engine with a 9-to-1 ratio and a short timing cam can produce a higher effective compression pressure than one with an 11-to-1 ratio because cams of higher-ratio engines will have longer duration.

Short timing cams are always an aid to economical operation, since they produce less exhaust dilution at partial throttle, and they provide a longer power stroke.

Carburetion receives credit all out of proportion to its actual role in the fuel consumption rate of an automobile. True, it can affect economy adversely if it is faulty, but the majority of the modern carburetors are on a par with each other, and all operate quite efficiently. With the exception of a couple of simple compact carburetors, all of them possess an automatic means of changing the air/fuel ratio according to load. When the cars are cruising easily, the carburetors provide lean mixtures for low fuel consumption; when high power is being used, rich mixtures are provided.

Although small numerical rear-end gear ratios may not always be the most desirable for everyday use, it might be said that the smaller the better when entering an economy run. Regardless of the engine's specifications or the type of transmission employed, a small rear-end ratio will provide an advantage. Not only does a minimum ratio reduce engine friction, but it will allow faster downhill speeds without using the throttle. The smaller the gear ratio, the slower the engine must turn to maintain any given speed. The resultant lower engine rpm's naturally reduce the amount of horsepower consumed in overcoming engine friction.

Since a car's engine produces a braking effect when travelling downhill with the throttle closed, this effect is proportional to the gear ratio between the engine and the driving wheels. The larger the ratio, the greater the braking effect, and vice versa. A graphic illustration of this effect is demonstrated any time you shift into second or low gear to retard speed on a downgrade.

Being that the basic pursuit of the run is to get the most speed for the least amount of fuel, cars that come with small rear-end ratios have a built-in advantage with regard to mountain driving. Coasting in neutral is prohibited, so using a small gear ratio is the next best thing.

In viewing the economy potential of any automobile, the type of transmission cannot be overlooked. Regardless of what the final results of the economy run might be, certain types of transmissions waste less fuel than others. Obviously, the most economical gearbox, if properly used, is the old-fashioned stick-shift unit. This type will reappear in the compact class after being absent for a few years. Next on the list of efficiency is the automatic without a torque converter. Third on the list is the torque-converter-equipped automatic, because this type of assembly converts a larger amount of energy into heat than the other two when heavily laden. The most inefficient unit is the one that depends completely on a torque converter.

Looking over the major factors that affect the economy potentials of the automobiles entered in the Mobilgas Economy Run, it becomes obvious that some entrants will have a "built-in advantage." If each car were tested under laboratory conditions, those with the obvious technical advantage would probably be the winners, but since many more factors than lab conditions enter the picture, every entrant believes he has a chance of winning. If this belief didn't persist, there would be no annual contest.

In order to minimize the driver's handicaps, mechanical perfection in each machine's preparation is pursued with great zeal. A contestant obviously can't be expected to win with a vehicle that is in substandard condition, so crews, consisting of some of the nation's top mechanics, prepare each car.

Despite the many snide remarks that one might hear after the running of the Mobilgas Economy Run, preparation of the cars doesn't mean radical alteration. Even though there is much publicity to the contrary, many people believe that the cars are specially built at the factories and contain innovations not available to the general public. So firmly established is this belief, that many contestants are often offered premium prices for their cars at the termination of the run.

Disbelief in the stock status of the cars, however, is not without foundation, since many unorthodox practices have been uncovered in the past. Whenever unethical activities were detected, the next year's rules contained prohibitions to eliminate them. Through the years, the rule book has become "tighter and tighter," so any deviations that may still be permissible will produce a very, very small advantage.

To prevent the automobile manufacturers from entering cars that are specially built at the factories with economy-improving

features not found on standard models, United States Auto Club officials pick the vehicles at random, from agencies, warehouses and loading docks. If anyone thinks that radical alterations can be made during the preparation of a car, let him try to put one over on a USAC observer that has been watching these operations for years. Any time a mechanic works on a car an observer is peering over his shoulder to assure his honesty. In addition to the observer, other contestants hover around the car waiting for an opportunity to protest a procedure. With all of this surveillance there is a great deal of assurance that the rules are followed to the letter.

Examination of this year's rules reveals that they have even been tightened up to eliminate a couple of options that were allowed last year. Use of one-step-leaner carburetor jets or metering rods was a perfectly legal modification in 1960, but this year's run cars will have to use standard parts.

The special parts were listed in the manuals as high-altitude options. Two years ago almost half of the run covered country with an altitude of one mile or more above sea level, so these changes were at least half-legitimate. Standard fuel mixtures would have become excessively rich in the 11,000-foot pass that was part of the route.

This year the only high-altitude passes will be on the Tucson-to-Roswell leg, where 7,000 feet will be tops.

Initial spark advance could formerly be set ahead as much as five degrees beyond service manual specifications; this year the maximum figure is the one that appears in the manual.

Internally, the carburetor will be free of tinkering, and externally, the distributor will be in the same category, but this won't prevent changes in external carburetor adjustments and internal distributor corrections. Though these adjustments won't in themselves make radical differences in fuel consumption, they will nevertheless be employed for their contribution to the "cause."

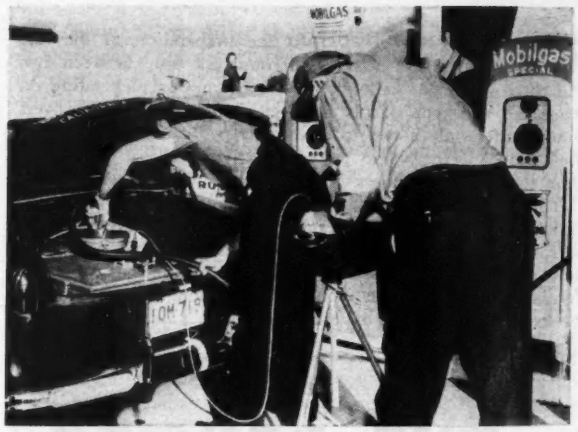
Passenger car idle jets are normally adjusted for a maximum power mixture of approximately a 12.5-to-1 air/fuel ratio. Car owners aren't much concerned about this adjustment, except for its influence on how the engines idle. When a car is driven in an economy run, it is operated in such a conservative manner that the idle mixture quite often contributes in a large measure to the total fuel that the engine burns. Since there is no prohibition against leaning the idle mixture, it would be pointless to ignore this means of reducing fuel consumption.

In conjunction with the idle mixture adjustment, the idle stop screw on the throttle arm is backed off a bit to slow the idle rpm. This modification, though it will make an engine much more prone to die when stopping for traffic signals, will save gas when idling at signals and travelling down grades.

Although the initial spark advance setting of the distributor cannot be increased beyond the amount set forth in the manual for any specific car, the advance rate of the flyweight governor advance mechanism can be changed as long as it stays within the manufacturing tolerance called out in the manual. Some distributors have a seven-degree manufacturing tolerance, which gives quite a bit of leeway in this department. Manufacturing tolerances will also be found in distributor diaphragm advance mechanisms, and some of these devices possess a means of adjusting them to the high side of tolerance.

In degree of importance, these small alterations that are made to some distributors are more important than anything that can be done to a carburetor. An economy run car is driven in such a conservative manner that the combustion chambers never receive very dense charges; in fact, they are only filled to a very small percentage of capacity. These weak charges burn so slowly that a large amount of spark advance is required in order to get complete combustion soon enough to get maximum efficiency; it is undesirable to have burning continue halfway down the power stroke.

As a further means of speeding combustion, spark plug gaps are adjusted to the absolute maximum specified in the factory service manual. A large gap means that a larger amount of fuel will be ignited initially.



Bubble level and screw jacks are used to level special tank for accurate filling. Fine measuring is accomplished by dividing total fuel cost by imaginary price of 49c per gallon. Thermocouple checks temperature.

Since the power output of the generator is not obtained free of charge, that is, it takes gasoline to produce the current, voltage regulators are adjusted to a minimum amount that will just satisfy the needs of the car while avoiding battery drain.

To conserve fuel, the economy run isn't driven like an acceleration contest, so minimum transmission use is desirable. This brings about another adjustment that is a must. The linkage that connects the throttle to the transmission and controls the shift points is adjusted so that a minimum use of the gears results. The intent is to get the transmission to shift into its top gear as soon as possible.

Rolling friction is attacked in many ways. Wheel alignment is adjusted to an accuracy far closer than production line settings. Brakes are backed off so that the shoes do not drag on the drums even a little bit. Certain makes of tires are even selected when possible to benefit from their lower rolling resistance. Tire pressure, the one area that could stand a radical improvement, is limited to four pounds above factory specs.

Before the 1960 run, California technically did not have a maximum highway speed law, so drivers made a practice of breaking in their automobiles at speeds up to 100 mph after an initial slower-speed period. While traversing the distance from the automobile impound to the desert area where the fast runs were made, maximum engine mileage was assured by keeping the transmission in a lower gear. High-speed runs not only hasten engine wear but they increase the wear in all parts of the drive train and running gear, so that the machine can be well broken in even though the rules place a 1500-mile limitation on break-ins.

Now that California's maximum speed limit is 65 mph, most of the break-in runs will be made in lower gears. The wheel bearings and rear-end bearings will not receive the benefit of 100-mph speeds unless an entrant wants to incur the wrath of USAC officials. Such runs cannot be made secretly, because a USAC official rides in the car any time it leaves the impound, to both record the events of the trip and guarantee that the car is not tinkered with.

Certain makes of tires offer the least rolling resistance when they are brand-new, but others do best when they have considerable wear. Those drivers that need worn tires spend quite a bit of their break-in run time on winding mountain roads. Hour after hour they wind around curves with the tires sliding to grind off rubber.

REGARDLESS OF HOW IMPORTANT the preparation of the cars may appear, these activities account for only between two and three miles per gallon of fuel consumption, depending on the make and type of car involved. Most of the run drivers would suffer only a two to three mile per gallon reduction in their scores if they were forced to drive cars that were fresh from the showroom floors, but broken in.

The driver's role while competing in the run, whether he knows it or not, is the conservation of energy. Everything that he makes the car do, is done with the thought that it must be done as "cheaply" as possible. In order to acquire the knowledge necessary to drive in an economical manner, he spends a few weeks to a few months experimenting with a duplicate test car.

THE DRIVERS IN THE ECONOMY RUN

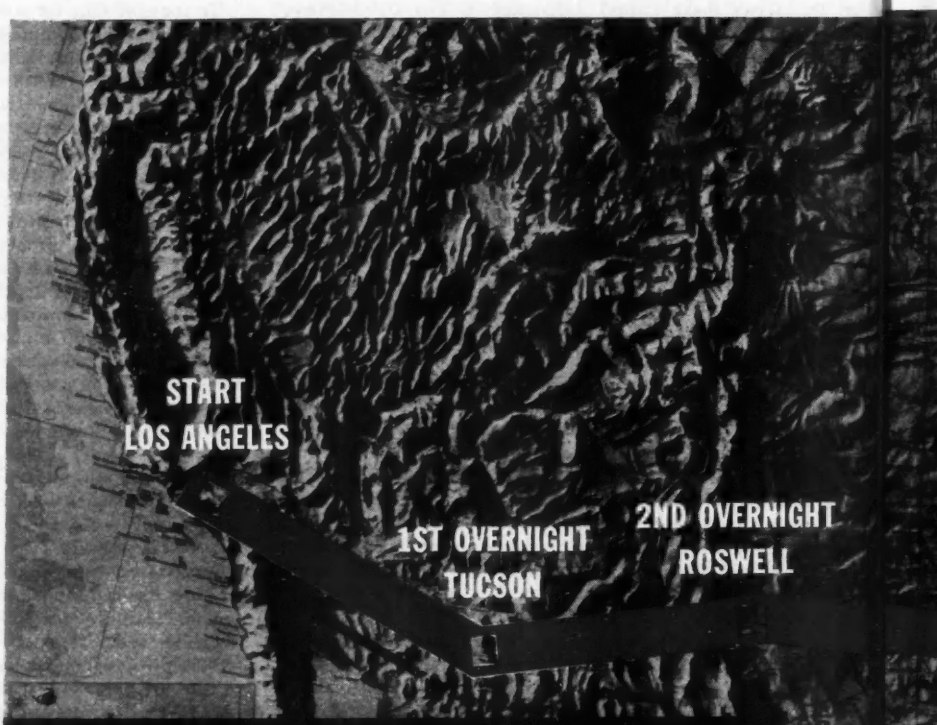
Test cars are usually fitted with a vacuum gauge and a flow meter so that the results of driving techniques can be readily observed. Though a vacuum gauge may be traditional, it is not the last word in measuring devices. Its greatest value is in making the driver aware of too-rapid application of the throttle.

Some flow meters are crude one-tenth-of-a-gallon burettes, and others are elaborate dual graduates calibrated in cc's. Regardless of the type used, its purpose is to determine the manner in which the automobile should be driven. The most efficient acceleration rate must be determined, the speed at which different grades should be climbed and the proper technique for descending a hill are all computed with the aid of a flow meter and the car's odometer.

To the uninitiated the most startling information gained from the flow meter is the fact that the majority of automobiles equipped with automatic transmissions must be driven faster uphill than on level ground. Any car that has a torque converter must have its speed increased as the degree of incline is increased — in other words, the steeper the hill, the faster.

Torque converters, whenever they are called upon to multiply torque, waste a certain amount of energy by generating heat. In the interest of saving energy, a run driver must try to keep the converter at lock-up as much as possible. Since lock-up with light loads can be obtained at low engine rpm's, flat country driving can be slower than mountain driving, where loads are higher and more rpm is required to get a solid coupling.

By the time the starting date of the economy run rolls around, the driver should be familiar enough with his duplicate test car so that he can apply what he has learned to the run car



Overnight stops, shown on map, were announced in advance of economy run start, but exact route between cities was held secret until hours before start of each section to prevent entries from making extensive studies of travel conditions. Photograph is of a portion of excellent United States topographic relief map by Aero Service, 210 E. Courtland St., Philadelphia, Pa.

without the aid of instruments. During the run he is accompanied by a USAC observer, who shares the front seat and sees to it that all run rules and traffic laws are rigidly obeyed. The back seat is occupied by a relief driver, who really serves as a navigator (once in a great while the relief driver is actually called upon to take over).

All during the run the navigator has the very important task of keeping track of the time and maintaining speed averages, for a specific length of time is allowed for each leg of the run. Any car that exceeds the maximum specified time is penalized in such a manner that any savings in fuel resulting from slower driving is more than canceled.

Due to the 40- to 42-mph averages required to negotiate each leg of the run, many people have assumed that flat country speeds of 60 to 65 mph are necessary to maintain the averages because of the retarding effect of traffic in the cities that must be passed through. Seldom does a speedometer go above 46 to 48 mph on level ground, but it may climb as high as 55 going up a grade or 70 down a grade if the speed limit allows.

Speed zone signs are obeyed in a different manner from the usual legal procedure when you drive in the Mobilgas Economy Run. Instead of being allowed a reasonable distance to reduce speed after passing a speed zone sign, the car's speed must match or be lower than the sign when adjacent to it. If the car's speed is excessive when coming abreast of the sign, the driver must apply the brakes hard to drop speed. The USAC observer makes sure this is done and if it isn't, he records the incident in his log for a future penalty.

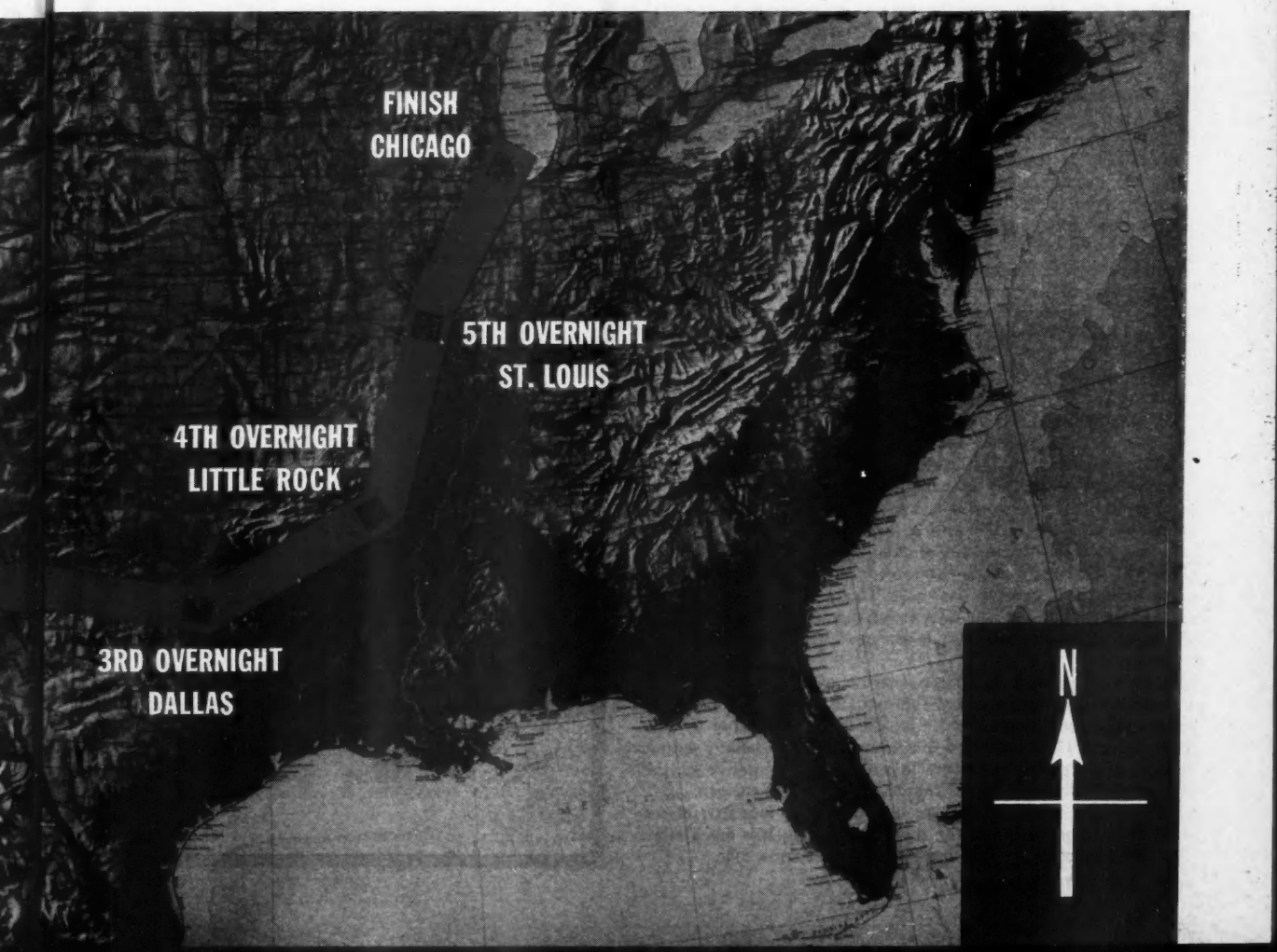
In addition to maintaining averages, the navigator can be very helpful to the driver if he maintains a running forecast of approaching speed zone changes, stop signs and signals. By referring to his log, which contains all of these points, and using simple computations he can inform the driver what his odometer reading will be before reaching them.

Knowing when to slow down may seem unimportant, but it still boils down to conservation of energy. The brake pedal is to be used only when absolutely necessary. The best attitude to assume regarding the brake, except when having to make a full stop, is that if you have had to use it, you had your foot on the throttle too long.

One of the main reasons that the female economy run drivers are racing drivers of one type or another is because they will keep their feet off of the brake pedal when traveling down winding mountain roads. When Mother Nature, in the form of gravity, returns some of the energy you expanded climbing up one side of a mountain, you should be willing to accept the gift on the downhill side.

Too much cannot be said about the fuel-wasting effect of the brake pedal. This one control is responsible for increasing the average driver's fuel consumption by one-third. During the run, the driver and navigator do everything possible to minimize changes in speed and to avoid stopping except at stop signs. An all-out effort is made to synchronize speed with stop signals in every large city. Sometimes it is possible to travel from the outskirts to the center of a large city without hitting more than three red signals.

In past years, crews have had advance men travelling one day ahead of the caravan checking out the timing of every stop



signal on the route. The exact green, amber and red intervals would be timed with a stop watch and the location of each signal would be related to a pair of streets. In the evening this information would be phoned back so that it could be used the next morning. Knowing how long each signal remains a certain color makes it very easy for the driver and navigator to keep the car synchronized with the green lights.

In past years this stop signal routine was easily accomplished because everyone knew the exact route of the run two days before the start. This year the route of each leg will be secret until shortly before departure for that specific leg. Unless the sharpies determine the route ahead of time, this lack of stop signal timing is going to increase fuel consumption in this year's run because higher flat country averages must be maintained to offset signal delays.

With or without advance signal timing information, large cities always tax the ability of a driver to handle an automobile. He must be able to weave in and out of traffic in a manner that would cause most drivers to bend a few fenders—all this to keep the car rolling. Again we find a reason for selecting a number of female racing drivers. They have the aggressiveness to do this, and the handling ability to stay out of trouble.

Though trips through cities are made at legal speeds (sometimes the run cars are the slowest in the "herd"), they present quite a thrill because of the violent maneuvers and close shaves that are necessary if brake usage and stopping are to be avoided.

Mountain driving and city driving may present problems, but none matches the difficulty experienced in flat country. Techniques used in the mountains and cities are calculable, but on the plains there is always a great unknown, the wind. Knowing what the wind velocity and direction is going to be at any time of the day is more important in winning a modern economy run than any other piece of information.

If the air is calm at the time of departure and you know that there will be a 20-mph head wind four hours later, you will find that it is to your advantage to drive 10 or 15 mph faster in the first portion of the leg so that you can reduce speed when bucking the wind. Wind resistance increases with a square progression, so high speeds in high winds are to be avoided like the plague. A good weather forecaster can do much to help a crew win. He can provide wind forecasts that will make it possible for a driver to match driving procedures with prophecies of future conditions. A tail wind later in the day might be a good example. Earlier in the day, before a tail wind becomes available, speed can be kept below normal; when a tail wind becomes available speed can be increased above normal because the car is not travelling through air as fast as it is rolling over the ground. You could be travelling at, say, 60 mph but meeting wind resistance of, say, 40 mph.

Whether travelling under windy conditions or in dead calm air, wind resistance is always given prime consideration. From the temperate climate of Los Angeles, through the heat of the California desert, to the colder weather of the Midwest, the windows of all the cars are kept closed to reduce air drag. Some crews are not quite as fanatical as others, so they keep one or two windows "cracked" a half an inch or so.

Due to the large amount of glass in the modern U.S. automobile, sufficient heat is obtained from the sun to keep the car comfortable even in the snow. This same glass area makes the heat unbearable when crossing the desert, so some contestants tape aluminum foil to the rear window to reflect the sun's rays.

Even when there is no sun because of clouds or an early-morning departure, some of the more fanatical entrants won't use the heater because of the electric current required to operate its blower. The rules state that every car must have a heater and radio (probably so that it will be representative of the average family car), but these are seldom used on the run.

Whether a driver is a winner or an also-ran, it is easy to see why he can be intrigued with the run each year. It is much more than a contest to see who has the lightest throttle foot.

THE ECONOMY RUN RESULTS

1960 TO MINNEAPOLIS

Price Class	Miles Per Gal.	Price Class	Miles Per Gal.
CLASS A — COMPACT CARS			
Rambler American Custom	28.3533	Ford Falcon	25.6421
Valiant	27.2992	Ford Falcon	25.6343
Corvair	27.0315	Studebaker Lark VIII	23.2838
Valiant	26.4700	Rambler Deluxe	23.2076
Corvair	26.2162	Studebaker Lark VI	21.8585
CLASS B — LOW-PRICED SIX CYLINDERS			
Plymouth Savoy 6	24.8265	Chevrolet Biscayne 6	21.4874
Dodge Dart 6	24.7429	Chevrolet Biscayne 6	21.2904
Plymouth Savoy 6	24.7360		
Dodge Dart 6	23.9037		
Ford Fairlane 6	22.4834		
CLASS C — LOW-PRICED EIGHT CYLINDERS			
Plymouth Belvedere 8	22.8899	Ford Starliner 8	21.0054
Plymouth Belvedere 8	22.5256	Ford Starliner 8	20.9914
Dodge Dart 8	22.2885	Chevrolet Bel Air 8	20.4236
Dodge Dart 8	21.7326	Chevrolet Bel Air 8	20.2345
Ford Fairlane 8	21.5802	Chevrolet Impala 8	18.6132
		Chevrolet Impala 8	18.4537
CLASS D — LOW MEDIUM PRICED			
Studebaker Hawk 8	22.9899	Pontiac Catalina	19.3778
Dodge Matador	21.1214	Buick Le Sabre	19.0788
Mercury Monterey	21.0696	Buick Le Sabre	19.0670
De Soto Fireflite	21.0139	Pontiac Star Chief	19.0424
Mercury Monterey	20.7221	Oldsmobile 88	18.2401
Rambler Ambassador 8	20.2698	Oldsmobile 88	18.2095
Pontiac Catalina	19.7329	Pontiac Star Chief	18.0729
		Chrysler Windsor	18.0209
CLASS E — UPPER MEDIUM PRICED			
Chrysler New Yorker	20.8715	Buick Electra	17.9076
De Soto Adventurer	20.3627	Buick Invicta	17.6966
Thunderbird	19.8912	Oldsmobile 98	17.1785
Chrysler Saratoga	19.8165	Pontiac Bonneville	17.1469
Buick Invicta	18.4910	Pontiac Bonneville	16.7715
Buick Electra	17.9581		
CLASS F — HIGH PRICED			
Imperial	20.5036	Cadillac	18.8170

WHAT DOES THE ECONOMY RUN PROVE?

WHAT THE MOBILGAS ECONOMY RUN proves depends, to some extent, upon what kind of proof is wanted. There is only one set of miles-per-gallon figures announced at the end of the event, but a variety of conclusions can be drawn from them.

The mpg figures, to begin with, are not the absolute maximum in fuel economy, nor does anyone pretend that they are. Each and every car in the economy run is capable of really amazing gasoline mileage under easy and ideal conditions, such as long and level straights at moderate and steady speeds on a warm, windless day.

But the route of the economy run, as it is laid out on the preceding pages, is such that totally unrealistic fuel figures are not possible. The terrain and the traffic, coupled with the speeds that have to be maintained, combine to bring down the gasoline mileage to near-reasonable levels.

Yet it is clear, also from the preceding pages, that the preparation of the cars involved and the driving techniques employed are not typical of the average car in the hands of an average driver.

The cars are stock. No deviations from factory options or tune-up enter the picture. But the cars are in perfect tune for economy — a condition the average car owner's car may attain rarely but not maintain regularly. Therefore, in those respects, the economy run figures will average out on the high side.

Then the driving technique of the experienced drivers obviously differs so from the habits of the average driver. The very soft feather-foot on the throttle, the careful avoidance of stops and quick bursts of acceleration — all these are techniques available to anybody, but who uses them on a mission to the neighborhood supermarket?

So the first thing that shows is that maximum potential of the cars under normal road conditions but with the persuasion of near-perfect mechanical attention and driving skill. The mpg figures are something for the average car driver to shoot at, if he cares, but which he can scarcely hope to realize unless he tries very hard.

What the man-on-the-street wants from the economy run is some kind of index to the gas mileage he can expect from his car or the one he thinks he might buy. He can get some information with a little study of the results and some applied background.

On these pages are the results of the 1960 economy run. In many cases the cars are similar to the 1961 models of the current event, and so mpg figures can be compared. There are a few exceptions to this, instances in which totally new 1961 models lack any 1960 counterparts.

While a careful comparison of averages does indicate a general level of fuel economy potential, it still does not provide a clear relationship to what the average car driver can expect. It is necessary to connect systematically the results of the economy run with other accurate experience. It can be done by correlating with MOTOR TREND road test reports, highly precise in themselves. Then a pattern does emerge.

A comparison between the recent economy run 'mpg figures and gas mileage obtained from similar cars by MOTOR TREND road testing, shows a difference of from 3½ to approximately 6½ mpg in th six classes of cars involved. For example, the economy run compacts averaged 3½ mpg better than similar cars did in MT tests. The standard low-priced V-8's average about six mpg better, while the high-priced luxury cars average 6.4 mpg more.

From this it appears evident that the economy compacts are cars with which the average car buyer can hope to approach, if very rarely match, the gas mileage levels of the economy run. In such cars, with inbuilt economy and relatively low accelerating ability, uneconomical driving habits — such as fast and frequent starts — do not involve an excessive penalty in fuel consumption. These cars cannot be "abused," so to speak, by a heavy foot on the throttle.

The big V-8's are another matter. It is chiefly in these cars, with engines with a big reserve of power, that there is a wide gap between the economy run figures and the fuel averages of day-to-day ordinary driving. Such cars, when driven with care in the economy run, show an impressive increase in fuel economy. When driven without good gas mileage in mind, and using the full extent of the engine power frequently, the fuel economy is comparatively poor.

If a rule of thumb is to be ventured here, in order to estimate the kind of gas mileage average drivers should anticipate, it seems safe to say that deducting three mpg from the economy compact class results, four to five mpg from the standard Six results and five to seven mpg from the big V-8 classes, would be reasonable.

An incidental but nonetheless interesting sidelight on gas mileage through the history of the economy run is possible in the case of the Chevrolet Six. This engine has been basically unchanged since 1937 and has been entered in every year of the economy run but one (1941). Its average mpg has varied only slightly in all those years. This is its record:

YEAR	MPG
1936	25.7
1937	19.5
1938	22.0
1939	23.3
1940	22.9
1941	Not entered
1950	21.1
1951	22.0
1952	20.6
1953	Disqualified
1954	22.3
1955	21.6
1956	21.2
1957	21.5
1958	20.6
1959	22.4
1960	21.5

One important fact, relatively common in all cars, is most apparent in this gas mileage history of the Chevrolet Six. That is through all the development of American cars in 25 years — increases in car size and weight, higher accelerating ability and more power and more accessories and power assists — the fuel economy results, as they have been demonstrated by the Mobilgas Economy Run, have remained at substantially the same level.

This is to a degree a credit to Detroit, although not entirely. It can be assumed that while the foregoing transitions in cars were being made, the skill or knowledge of drivers and mechanics of the economy run also improved. Experience enabled them to do better and better with what they had, even if they had less favorable circumstances. Yet it would be incorrect to deny that the gas mileage potential in cars has remained high — it is only the increased range of power in the hands of thoughtless car drivers that has caused everyday gas mileage to drop.

TRIUMPH
TRIUMPH
English
FORD
Line
LANCIA
English
FORD
Line

IMPORTED CARS FOR '61

The International Automobile Show spotlights a record number of new cars that have come to America

THE CAR BUYER of America is spoiled. No matter what his taste in automobiles calls for, he will find it displayed in a showroom not far from home. For, as in no other country in the world, there are for sale here cars, both domestic and imported, that encompass every concept of design, every form of utility, every method of manufacture.

The year 1961 sees this particular phenomenon at an all-time high. There are more types of cars for sale in the United States today than at any other time in automotive history. Detroit is producing 29 makes or special types. All of them were previewed in the special Auto Show Issue of MOTOR TREND last November. Now the imports take the spotlight as the New York International Automobile Show showcases cars from all over the world. This special Import Issue of MT, published in conjunction with that show, presents the overall picture of imported autos for the U.S. driver. On the next 34 pages are reports on nearly 100 new cars from abroad for 1961.

This staggering number of names, styles and concepts is bound to create confusion for even the most avid of car buffs. Many auto enthusiasts find that just the domestic cars provide more than enough variety to keep their enthusiasm and interest alive and, for that reason, don't even take the trouble to study and understand the imported car picture. They're making a big mistake, for, like it or not, the imported car has cut out its own solid spot in the American market and will continue to be a strong influence in all phases of the U.S. automotive picture. To know the story behind today's cars and the prospects of future designs, both here and abroad, one must have some acquaintance with the current imported cars.

Are imports better? This is the most frequent question asked by today's consumer. The answer, of course, cannot be a simple yes or no. In comparison with past models from abroad, this 1961 crop stands out as a good example of how continuing refinements can make the same basic designs more valuable and important to a particular market. The majority of the new imports are better than their predecessors but not because they are all new. Probably the most outstanding characteristic of the new imports is the fact that so many members of this large group seem relatively unchanged in appearance. But changed they have been and they have been important but unsensational refinements, modifications called for by experience, the tightening of quality control in manufacturing. They are now cars better suited to this market and better able to deliver the performance desired.

The most difficult comparison of virtues in this field arises in the battle between Detroit and the car makers abroad. Are the imports better? Certainly most will take the edge in economy (both of initial cost and of operation), in a greater range of choice and, in some cases, higher quality of materials and assembly. But the U.S. car fights right back with its personality suited to American conditions. Each side has its points and no fair appraisal can name one the overall winner.

There is only one way for the buyer to be sure of which type car fits his needs: He must be well enough informed on all available possibilities to pick the car for the job himself. To make that possible MOTOR TREND now presents this guide to all of the imports. To the best of our knowledge it is the most comprehensive report of its type yet offered.

Imported Cars For 1961

THE ECONOMY IMPORTS

Auto DESIGNERS throughout the world have a WIDE VARIETY of SOLUTIONS to the question of LOW-COST TRANSPORTATION

AUSTIN A-40, two-door sedan, $1795, Great Britain

The crisp Italianesque lines of the A-40 mark it as a smartly styled small sedan, while the bottom-hinged tailgate gives it a functional station wagon flavor. In short, it is an unusual combination of the two.

Powered by the British Motor Corporation's A-type engine (in this application it displaces 57.8 cubic inches and delivers 38.5 hp at 5000 rpm), the A-40 follows the firm's unit construction trend. Sturdy and solid, the body will carry four adults and a good quantity of luggage. The alternative is two in front and 19 cubic feet of cargo area available in the rear when the seat is folded down and not quite flat. Semi-bucket seats are in vinyl, with the balance of the interior tastefully simple.

The four-speed transmission shifts from the floor and works the car up to a top speed of nearly 75 mph. Acceleration is good (zero to 50 in 17 seconds) for its 1700-pound curb weight, while economy rarely drops below 30 mpg and will range awfully close to 40 mpg. Suspension is conventional; independent at front via coil springs and a solid rear axle with semi-elliptic leaf springs. Handling is considered good — light, precise steering, excellent cornering ability and brakes more than ample in size.

BMC's practice of utilizing the same engine block in several models not only cuts production costs but assures the consumer of a refined powerplant. A further plus is the interchangeability of parts possible. They are available from a service network that is highly regarded throughout the U.S. As an economy sedan that can serve several functions, the A-40 is worthy of high praise.

General specifications: Wheelbase, 83.5 inches; front tread, 47.5; rear tread, 47; overall length, 144.3; height, 56.8; width, 59.4.

Other series available: Deluxe two-door sedan, $1856; Countryman two-door station wagon, $1835; Countryman deluxe two-door station wagon, $1879.

AUSTIN 850, MORRIS 850, two-door sedan, $1295, Great Britain

These two cars, identical except for the grilles, could almost be mistaken for mini-cars in outward appearance, but never in performance, which is outstanding on all counts. Square and boxy, the 850 has been designed by the ingenious young Briton, Alec Issigonis, as a different concept in low-price transportation; no frills, maximum usable space from minimum size, simplicity, lightness, space for four adults plus luggage, reasonable touring speeds and maximum economy.

Most unusual is the drive train, with the four-cylinder ohv engine sitting crosswise at the front. Water-cooled, developing 37 hp at 5500 rpm from 51.7 cubic inches, it is in unit with and perched on top of the transmission and differential, driving the front wheels. All this is capable of pushing the car from rest to 50 mph in 18 seconds, to a maximum of 73 mph, and delivering regular fuel economy that nudges 40 mpg.

Suspension, independent all around, is as unique as the rest of the car; the variable-rate rubber suspension units mark the first use on a production passenger car of this principle. And it works. Roadholding is excellent, while passenger comfort is on a par with much larger cars. A unit body with the front end — engine, steering and suspension — bolted on as a sub-frame, assures long rattle-free service.

Engine and major mechanical components are time-proven British Motor Corporation products, and reports of owners indicate that the 850 is extremely sturdy with a lengthy life expectancy. The dealer and service set-up is one of the most extensive (for imports) in the U.S.

While the 850 is one of the smallest of the small, its characteristics make it entirely suitable for the driving habits of most Americans. A motorist who habitually makes cross-country trips would probably not be satisfied, but it could be done.

General specifications are: Wheelbase, 80 inches; front tread, 47.4; rear tread, 45.8; overall length, 129.8; height, 53.5; width, 55.5.

Other series: No others available.

AUTO UNION 1000, two-door sedan, $1995, Germany

Virtually unchanged for 1961, the reliable and efficient Auto Union is one of those with a basic model just under $2000, while the balance of the line ranges considerably over our arbitrary class dividing figure. Because the cars are mechanically the same, the changes being in trim and coachwork, we

BORGWARD HANSA

AUSTIN A-40

have placed them (except the sport coupe) in the economy group, where they rightfully belong.

Several features mark the Auto Union as unusual. First, the engine is a thermo-syphon water-cooled three-cylinder, two-cycle unit; this means no camshaft or valves (seven moving parts) and a power stroke each time the piston moves down, twice as many as a four-cycle engine delivers. Displacing 59.8 cubic inches, the standard powerplant develops 50 hp at 4500 revs. (The engine in the 1000-S develops 57 hp at 4500.) Owners must, however, mix oil with gas at each refueling for proper lubrication. The engine is in unit with transmission and differential, therefore front-wheel drive, which gives exceptionally good cornering and handling. Incorporated is a manually controlled free-wheeling device which should be used except when engine braking is essential. The roller-bearing crankshaft, all-synchro four-speed transmission and rack-and-pinion steering add to the car's quality features.

Interior space is excellent, with comfortable seating for four or five plus a roomy trunk compartment. Quality of finish is extremely good and riding qualities are of the highest order. Heater is standard on all models.

The factory rates the maximum cruising speed at 79.5 mph and normal fuel consumption at 27.4 mpg, which closely follows the on-the-road experience of owners. One of the car's points is its mechanical simplicity, which leads to long life without major repairs. Although the car has never been a huge seller in the U.S., service facilities are readily available at Mercedes-Benz dealers.

General specifications: Wheelbase, 92.5 inches; front tread, 50.8; rear tread, 53.1; overall length, 166.3; height, 57.7; width, 66.7.

Other series: 1000-S four-door sedan, $2526.03; 1000-S two-door deluxe coupe, $2300.99; 1000 two-door station wagon, $2321.07; 1000 Bronco multi-purpose (four-wheel-drive) vehicle, $2775.

BORGWARD HANSA, two-door sedan, $1797, Germany

This is the automobile formerly known as the Goliath and there is still a strong physical resemblance, but along with the change in name have come 118 engineering changes and modifications designed for greater appeal to the American market.

The basic sedan is powered by a water-cooled flat-four which drives the front wheels. Developing 46 hp at 4250 rpm from 66.5 cubic inches, this engine may be ordered in a hotter version (63 hp at 5000) in the Luxus sedan or the sport coupe. Rated top speed with the standard engine is 77 mph; with the extra horses, speed is increased to 84 mph. Along with respecable speeds comes economy in the 30-mpg range for the standard sedan, dropping to the mid-20s with the more powerful engine.

Quality of interior appointments is quite high for this class of automobile. The bench seats will accommodate four adults, driving position is good and a full set of instruments is placed where the driver can see them without searching. In the Luxus sedan (the same body shell as the standard) the manufacturer has gone all out with plush trim, reclining seats, padded dash and such extras as electric clock and lighter included as standard. Trunk room is at a maximum for a car of this size.

The four-speed transmission is all-synchro and shifts from the steering column. Fourth gear is an overdrive except on the station wagon, where it is direct. Because of the front-wheel drive, roadholding and cornering ability are exceptionally good. This condition seems to be typical of autos that pull instead of push.

Included in the Hansa line is a two-passenger sports-type coupe that offers style along with economical motoring.

General specifications: Wheelbase, 89 inches; front and rear tread, 51; overall length, 161; width, 65.5; height, 53.

Other versions: Luxus two-door sedan (46 hp), $1950; Luxus two-door sedan (63 hp), $2100; sport coupe (46 hp), $2210; sport coupe (63 hp), $2375; two-door station wagon, $1900.

BMW 600, five-passenger sedan, $1398, Germany

Often called the Isetta 600, this vehicle is essentially a minicar, yet eminently suitable for city commuting. Its physical and engineering characteristics take it far out of the conventional small-car class; the box-like body has a nose door for access to the front seat, while a second door on the right side gives entrance to the back seat. The factory claims the car is a five-passenger, but it will be a cozy fivesome.

Power is from a de-tuned BMW motorcycle engine — a four-cycle, air-cooled, horizontally-opposed unit displacing 35.4 cubic inches anod developing 26 hp. The four-speed synchromesh gearbox is controlled from the floor. Heater is standard on all models, while sunroof and automatic clutch are optional.

Top speed is over 60 mph, while acceleration, because of the relatively light 1135 pounds, is on a par with the Volkswagen. As might be expected, fuel consumption is moderate, ranging from about 40 to 55 mpg. The 600 is designed for and provides minimum transportation at a low price.

Service and distribution are somewhat limited, although a good motorcycle shop would probably be equipped for engine repairs.

General specifications: Wheelbase, 67 inches; front tread, 48; rear tread, 45.7; overall length, 115; height, 54; width, 55.

Other series: Add $89 for sunroof; $95 for Saxomat automatic clutch.

BMW 700, two-door sedan, $1648, Germany

From the production of high-quality motorcycles to the building of snug economy sedans and sports-type coupes would seem to be a big jump, but BMW has bridged it successfully.

The 700 is small but not so diminutive that passengers get that closed-in feeling. The unit body has space for four large adults and a surprisingly roomy front hood luggage space. There is a large amount of glass area for excellent visibility. The general run of finish is high throughout; yet simplicity gives the car that neat-as-a-pin quality.

Power comes from the rear, where a two-cylinder air-cooled engine, displacing 42.46 cubic inches, develops 35 hp at 5200 rpm. This four-cycle engine with its flat-opposed cylinders has a motorcycle ancestry, but it is no less suitable for automotive use. Top speed just exceeds the 75-mph mark, and a gallon of gas is required for about every 40 miles. The 700 has impeccable handling manners, due in large part to the all-independent suspension — leading arms in front and swing axles with large trailing arms at the rear. Rack-and-pinion steering gets it around a 30-foot turning circle. The four-speed gearbox, incidentally, is floor controlled and all synchro.

With essentially the same mechanical specifications, the smartly styled coupe has just slightly less interior space. There is a back seat, children's size, which, folded flat makes into an extra luggage compartment. A 45-hp engine, said to give 90 mph, is available for the coupe.

The BMW dealer organization is currently being expanded, while the parts supply at existing dealers is good.

General specifications: Wheelbase, 83.5 inches; front tread, 50.8; rear tread, 47.2; overall length, 139.4; height, 52.9; width, 58.3.

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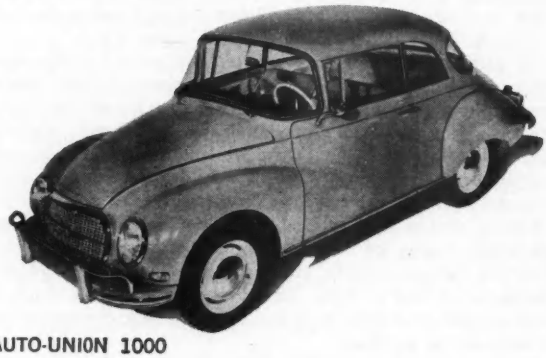
AUSTIN 850



AUTO-UNION 1000

DAF

DATSUN

BMW 600

CITROEN 2-CV

The Economy Imports

Other series: 700 coupe, $1898. For coupe or sedan add $89 for sunroof, $95 for Saxomat automatic clutch.

CITROEN 2-CV, four-door sedan, $1265 (West Coast p.o.e.), France

It will never win any beauty contests, and for this reason has never achieved great success in this country. Yet, customers throughout other parts of the world scramble eagerly to buy the 2-CV. The reason? It comes very close to being the ultimate utility vehicle — cheap to buy and operate, nearly indestructible, easy to drive, and completely functional.

The two-cylinder opposed air-cooled engine, displacing 25.9 cubic inches, develops only 12 hp at 3500 rpm. This is enough for about 50 mph and 50 to 60 mpg. Front-mounted, the engine drives the front wheels for extraordinary traction and the go-anywhere ability is aided by independent rear suspension and 7.5 inches of road clearance. As examples of the car's affinity for difficult terrain, it is a favorite of wildcat oil companies in the Sahara and is used by Scandinavian auto clubs in charting Arctic Circle highways.

Built on a platform chassis, the utilitarian coachwork holds four adults on simple, thinly padded seats which are quite comfortable, also removable for picnics. A roll-back top makes it a convertible, while a removable luggage door creates a virtual pickup truck. Driving is made as simple as possible through a semi-automatic centrifugal clutch, which eases shifting the four-speed transmission. Lightweight construction keeps empty weight down to 1078 pounds.

This truly remarkable car actually has great potential in this country as a special-purpose transporter wherever the going is difficult.

General specifications: Wheelbase, 96 inches; front and rear tread, 50.4; overall length, 151; height, 64; width, 59.2.

Other series: No others available.

DAF 600, two-door sedan, $1395, Holland

A relatively new entry into the U.S. sales derby, so few DAFs have been imported that it is impossible to say whether or not this unusual vehicle will meet with public acceptance. Its departure from the norm is Variomatic drive (standard equipment), a fully automatic two-pedal system which ends the usual rowboat shifting technique necessary in small cars. Essentially it is a twin-belt drive that operates on expanding pulleys controlled by manifold vacuum. Through this system, it is impossible to over-rev the engine and the correct gear ratio (between 4.4 and 20 to 1) is automatically selected for any road situation.

Power is from a front-mounted two-cylinder air-cooled unit that develops 22 hp at 4000 rpm from 35.4 cubic inches. It isn't much punch by Detroit standards but it is enough to keep up with (if not ahead of) traffic. Top speed is about 55 mph, while fuel consumption will range between 30 and 40 mpg. All-independent suspension insures a good ride and very reasonable roadholding. There is a substantial amount of interior space; actually more than in a Volkswagen. Quick steering and a 28-foot turning circle make the DAF a natural in heavy traffic.

Currently dealers are being established in major cities; and it is presumed that parts and service facilities will be limited to the population centers.

General specifications: Wheelbase, 81 inches; front and rear tread, 46.5; overall length, 142; height, 54.5; width, 57.

Other series available: Deluxe two-door sedan, $1545.

DATSUN BLUEBIRD, four-door sedan, $1616, Japan

Japan is beginning to make its auto industry heard, and one of the voices is the Datsun. Simple, attractive styling, sturdy construction and good detailing throughout mark the Bluebird, which is designed for four or five adults plus luggage. Its built-to-last character and roomy interior for the overall size is reflected in the fact that it is popular as a taxi in Tokyo.

Powered by a four-cylinder ohv engine developing 48 hp at 4800 rpm, the Bluebird has a maximum speed of 77 mph. Front suspension is independent, while the rear utilizes a conventional solid axle carried by semi-elliptic leaf springs. Handling is good; particularly outstanding is the light steering which can turn the car in a 32-foot circle, making the car suitable for tight traffic situations.

Of particular interest is the Fair Lady model, a four-seat sports-type convertible which has the Bluebird engine. Differences are in a floor shift for the four-speed gearbox (the Bluebird has a column control), maximum speed of 82 mph, slightly shorter wheelbase but longer overall length. Side curtains are used in lieu of roll-up windows. It is the lowest-priced true four-passenger roadster currently on the market.

Dealers are still being established, but a huge parts depot and service center has been opened on the West Coast. Indications are that the Nissan Motor Corp., manufacturers of the Datsun, are going to stand behind their cars sold in the U.S. They are well worth the consideration of anyone contemplating an economy car purchase.

General specifications: Wheelbase, 89.9 inches; front tread, 47.6; rear tread, 47; overall length, 153.9; height, 57.5; width, 58.9.

Other series: Bluebird four-door station wagon, $1818; Fair Lady convertible, $2099.

DKW 750, two-door sedan, $1665, Germany

While the 750 has strong mechanical similarities to the larger Auto Union 1000 series, the styling differs completely. Introduced last year and continued with minor detail changes, its smartly modern body will seat four with space for luggage in a roomy trunk. Heater is standard. Bodywork and interior finish are of extremely high quality for a car in this price class.

Powered by a 45.2-cubic-inch, two-cycle engine that develops 39 hp from its three cylinders, the 750 has a maximum speed of 72 mph and careful drivers can achieve 35 mpg. Acceleration is brisk enough to stay with big-car traffic, while the front-wheel drive creates good high-speed cornering ability. Brakes are more than up to their job. Because of the unusual drive arrangement, the front brakes are mounted inboard of the wheels. Transmission, controlled by a column lever with an inverted H-pattern, is synchro through all four gears. Suspension is by torsion bars at all four wheels, rather than the transverse leaf springs used in the larger Auto Union.

The free-wheeling device, used on the 1000 series, is not included in the 750. Its purpose is proper engine lubrication during deceleration and the 750 incorporates a system that feeds enough oil-gas mixture for adequate lubrication at low throttle settings.

Service for this durable little sedan is available at Mercedes-Benz dealers across the country.

General specifications: Wheelbase, 85 inches; front tread, 46; rear tread, 47; overall length, 155; height, 55; width, 62.

Other series: No other available.

FIAT 500, two-door sunroof sedan, $1098, Italy

The selection of cars from Fiat is considerable. Within the five series being imported — 500, 600, 1100, 1200 and 2100 — there are many variations but they start at the 500 which is small but practical transportation.

Known this year as the 500-D because of a slight displacement increase (about one cubic inch) to 30.4 cubic inches, the rear-mounted, vertical, two-cylinder engine now develops 22 hp at 4000 rpm. It is air-cooled and will pull the car to about 60 mph. Acceleration is through a four-speed gearbox which must be used a good deal of the time in order to stay with traffic. Fuel economy will average out to about 40 mpg, including city and some open road driving.

The 500 is called a four-passenger sedan, but it will be cozy if the four are all adults. The car's best applications are for shopping or short-haul commuting where its economy, ease of handling and modest speed can all be used to advantage.

Also in the 500 group is a diminutive sunroof coupe, the Bianchina, a personal, sports-type two-seater. In the surrey category is the Jolly Wagon. Also, there is a station wagon, the Giardiniera, in which the engine is laid flat under the rear floor, but Fiat's plans to export it were uncertain at press time.

General specifications: Wheelbase, 72.4 inches; front tread, 44.1; rear tread, 44.5; overall length, 117; width, 52; height, 52.1.

Other versions: Bianchina coupe, $1298; Jolly wagon, $1760.

FIAT 600, two-door sedan, $1398, Italy

Slightly larger in every way than the 500, the 600 moves its owners into the four-cylinder class. Major change this year is the offering of the 600-D engine which is 21 per cent bigger than the 600; it totals 46.8 cubic inches and 32 hp at 4800 rpm. As the 600 it is rear-mounted and water-cooled, good for a maximum speed slightly above 65 mph. Under average conditions, gasoline mileage will be about 35 mpg. The standard 600 displaces 38.6 cubic inches, developing 28.5 hp at 4900 rpm. It continues in the line but it is not known how Fiat plans to export the 600; that is, whether or not they will concentrate on the 600-D as better suited to the U.S. market.

Function of the 600 is in much the same area as the 500 — shopping and commuting, but with more space, power and performance than the smaller car.

A versatile station wagon, the Multipla, features forward control, six-passenger capacity and folding rear seats that can create a 19-square-foot loading platform. Because of slightly different gearing for better pulling power, the Multipla's top speed is reduced to about 60 mph.

Other refinements in the 600 for 1961 include front door vent panes, key-turn starter and a new centrifugal oil filter.

General specifications: Wheelbase, 78.8 inches; front tread, 45.3; rear tread, 45.5; overall length, 129; width, 54.4; height, 55.4.

Other versions: Two-door sunroof, $1460; Multipla four-door station wagon, $1658; Jolly wagon, $1906; 600-D series, $N.A.

FIAT 1100, four-door sedan, $1659, Italy

For purposes of description, it is possible to speak of the 1100 and 1200 sedans together. Even though their bodies differ considerably, the cars are more alike than different: The 1200 engine is simply a bored-out version of the 1100, interiors are almost identical and suspension systems are the same.

Power for the 1100 is a four-cylinder ohv engine displacing 66.5 cubic inches and developing 55 hp at 4800 rpm. The 1200 displaces 74.5 inches, producing 63 hp at 5300 rpm. Fuel economy for the pair is quite close, ranging in the mid- to high-20s. Acceleration varies slightly with zero to 60 mph taking about 23 seconds in the 1100; the 1200 is two seconds faster. Rated top speed of the 1200 is 87 mph, while the 1100's maximum is specified as 81 mph.

Ride and handling are quite satisfactory and the same in both cars. Steering is medium light, maneuverability is excellent, and visibility is good from the 1100, outstanding from inside the 1200.

The level of interior finish and interior detailing is of high quality. Door panels and seats are not as nicely finished on the 1100 but both cars have reclining seats, three courtesy lights, retracting assist handles in the rear — all marks of care in the car's overall planning.

Front suspension, mounted on a sub-frame attached to the unitized body, is independent with husky A-arms, coil spring-shock units and a stabilizer bar. At the rear are a pair of semi-elliptics, tube shocks and a stabilizer bar.

General specifications: Wheelbase, 92.1 inches; front tread, 48.6; rear tread, 47.9; overall length, 156; width, 57.4; height, 58.7.

Other versions: 1100 four-door deluxe sedan, $1782; 1200 four-door sedan, $1998.

FORD ANGLIA, two-door sedan, $1608, Great Britain

Although a complete line of cars is built by Ford of Dagenham, only the Anglia will be sent to the U.S. during 1961. Apparently Ford's philosophy is to concentrate on Falcon sales. From the ugly duckling of the line, the Anglia progressed last year to a sharply modern two-door with hooded headlights and a flat rear window that is reverse sloped. This body continues unchanged.

There is comfortable motoring for four adults, who can stow their belongings in the 10-cubic-foot trunk. Under the hood they will find a four-cylinder ohv engine of the most modern oversquare design. The bore is 3.187 inches and the stroke only 1.906. It displaces 60.8 cubic inches and develops 39 hp at 5000 rpm. Its basic durability is such that it has become popular, in a hopped-up version, as an engine for Formula Junior racing cars. Further, a recent 10,000-mile demonstration around Britain's Goodwood road racing circuit proved that the car could average 60 mph and achieve substantially over 30-mpg fuel economy. The independent front springs are coils integrated with telescopic shock absorbers, while asymmetric semi-elliptics suspend the rear axle.

Handling, braking and maneuverability in traffic are all good. The Anglia features a four-speed gearbox, synchro on the top three gears. This is emphasized because it is the only four-speed in the English Ford line.

As a pleasing mixture of style and performance at a low price, the Anglia is an attractive package. And the service network of Ford dealers everywhere cannot be topped.

General specifications: Wheelbase, 90.5 inches; front tread, 45; rear tread, 45.7; overall length, 153.5; height, 56; width, 57.5.

Other series: No others available in the U.S.

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BMW 700

FIAT 600

DKW 750

The Economy Imports

FIAT 500

FIAT 1200

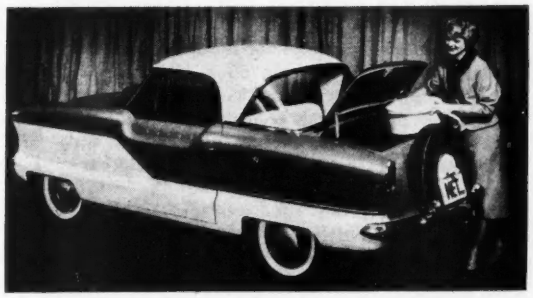
OPEL REKORD

GOGGOMOBIL

NSU PRINZ

HILLMAN MINX

FORD ANGLIA



METROPOLITAN

MORRIS 1000

The Economy Imports

GOGGOMOBIL T-400, two-door sedan, $995, Germany

All the ingredients for economy motoring are present in this line of imports. Even though the 400 series includes sedans, a step-in van and a convertible, and the 700 group has three versions, the car most often seen is the miniature sports-type coupe in the 400 series. It accommodates two, with a child's seat in the rear, plus luggage space under the hood.

The 400 group is rear-engined, with all-independent suspension and platform chassis. The engine, a two-cycle parallel twin, displaces 23.9 cubic inches and develops 20 hp at 6000 rpm, which is sufficient for a 55-mph cruising speed, about 60-mph top and fuel economy well up in the 40s. A four-speed electromagnetic pre-selector gearbox is available.

As the designation implies, the 700 is a larger car. Engine is placed conventionally up front but the powerplant itself is unconventional. A four-cycle horizontally-opposed twin, it develops 30 horses at 4900 rpm from 42 cubic inches. Maximum speed is between 65-70 mph, with gasoline mileage comparable to the 400. Transmission is four-speed with Porsche-type all-synchro gears.

General specifications (T-400): Wheelbase, 71 inches; front and rear tread, 43; width, 50.4; height, 51.5; overall length, 114.

Other versions (T-400): Sunroof sedan, $1035; van, $1350; Coupe deVille, $1395; convertible, $1445. T-700: Coupe, $1395; roadster, $1445; sprint coupe, $1695.

HILLMAN MINX, four-door standard sedan, $1735, Great Britain

The range of Hillman's 1961 offerings is extensive: Sedans, a convertible, a station wagon and the slightly smaller Husky station wagon create a well-rounded lineup of autos from Rootes, one of the pioneer small car importers.

The Standard sedan (formerly the Special) has been retrimmed with a grille similar to the Deluxe, new side moldings and a dash that also follows the Deluxe rather than the Husky as last year. The shift lever for the four-speed transmission has been moved to the floor on all models; however, it can be ordered for the column. Interiors are finished in vinyl. Seating is relatively high and quite comfortable front and rear. The large trunk area makes the car practical for trips, while the station wagon has a maximum of 44 cubic feet of interior storage.

A four-cylinder ohv engine of proven reliability develops 57 hp at 4600 rpm from 91.2 cubic inches. Top speed is in the 80-mph range, with economy in the mid- to high-20's. Handling and ride are generally good if not sensational; in short, a conservative, well-built small car.

Two options, unusual for economy cars, are offered on the Minx — an air conditioning system and Easidrive, a fully automatic transmission.

The Husky, a two-door station wagon, is generally smaller than the Minx. Wheelbase is only 86 inches, height is 62, length is 149.5 and width, 62. A versatile light delivery car with 40 cubic feet available space, or family commuting wagon, it is powered by a square (three-inch bore and stroke) four-cylinder ohv engine displacing 85 cubic inches. Power is 51 horses at 4400 and, accordingly, top speed drops into the 70s. It follows that fuel economy increases, and 30 mpg plus is not uncommon.

An excellent network of dealers well stocked with parts help owners keep their Hillmans on the road without long delays for repairs.

General Minx specifications: Wheelbase, 96 inches; front tread, 49; rear tread, 48.5; overall length, 162; height, 59.5; width, 60.7.

Other series: Four-door Deluxe sedan, $1875; two-door convertible, $2149; four-door station wagon, $2299; Husky two-door station wagon, $1679.

METROPOLITAN, two-door hardtop, $1672.60, Great Britain

Produced in England to American Motors' specifications, the Metropolitan has become increasingly popular with U.S. motorists. Unchanged for '61, the body features unit construction, space for two or three on a bench seat, door vent panes, and a large trunk accessible from inside or outside.

A BMC engine, the same as used in the Austin A-55, pushes the Metro along to nearly 80 mph, while fuel economy in the 35-to-40-mpg range is a strong point. The four-cylinder ohv unit displaces 90.89 cubic inches and develops a comfortable 55 hp at 4600 rpm. Ride is especially good, due in part to the independent front suspension via deep-coil springs. At the rear is a solid axle with leaf springs. Handling is excellent, and with a 35-foot turning circle the car is especially nimble and suitable for congested traffic or tight parking spaces. The three-speed transmission is column controlled. For cold weather the American Motors' Weather Eye heating system is a useful extra.

Carefully finished and fun to drive, the Metropolitan offers sports-type driving at a bargain rate. Of course, a plentiful corps of American Motors dealers stand ready to service the car.

General specifications: Wheelbase, 85 inches; front tread, 45.3; rear tread, 44.8; overall length, 149.5; height, 54.8, width, 61.5.

Other series available: Convertible, $1696.80.

MORRIS 1000, Standard two-door sedan, $1495, Great Britain

A strong contender as one of the best low-priced economy-utility sedans, the Morris 1000 is an interesting combination of the normal and unconventional.

The unit body, whose design has changed little since its introduction in 1948, has space inside for four with good head- and legroom. Bucket seats provide front seat comfort; the rear seat folds flat, opening into the trunk to accommodate long or bulky cargo. Front suspension through torsion bars is one of the unusual features. The rear is carried on semi-elliptics. Rack-and-pinion steering is another off-beat item in this class. It is light and accurate, one of the reasons the car handles as beautifully as it does at all speeds.

BMC's A-type engine provides the power, and it is a freely revving unit that seems unbreakable. Displacing 57.8 cubic inches, its four cylinders develop 37 hp at 4800 rpm. Top-end performance is 75 mph and it moves up through the four gears with all the alacrity of a sports car. As frugal as it is lively, 35-to-45-mpg figures are not unusual. On the debit side, noise level is fairly high.

A huge supply of parts is available and dealers are widespread throughout the U.S. BMC backs the Morris, as all their cars, with a 12-month warranty.

General specifications: Wheelbase, 86 inches; front tread, 50.6; rear tread, 50.3; overall length, 148; height, 60; width, 61.

Other series: Deluxe two-door sedan, $1599; Deluxe four-door sedan, $1718; Deluxe convertible, $1636; Deluxe two-door station wagon, $1825; Standard four-door sedan, $1678; Standard convertible, $1574; Standard two-door station wagon, $1798.

NSU PRINZ II, two-door sedan, $1398, Germany

NSU has attacked the problem of building an ultra-small

economy car in a novel manner; rather than take a tiny engine and tune it to the limit of its ability, NSU chose its famous twin-overhead-cam two-cylinder motorcycle engine and stressed it very lightly. Air-cooled, it is available in two versions: Normal tune (Prinz II) delivers 24 hp at 4800 rpm; in the Prinz 30 and Sports Prinz it cranks out 36 horses at 5500 revs. Either of these 36-cubic-inch engines delivers excellent performance because the cars are quite light in weight. The Prinz II has a maximum speed of 70 mph and fuel consumption is 50-60 mpg. The Prinz 30 will reach 80 mph and delivers slightly less mileage per gallon while the Sports Prinz, with better streamlining, is good for 85 mph and 40-50 mpg economy.

The tiny sedan body, identical in the Prinz II and 30, will carry four, or more comfortably three, plus luggage. Its styling is somewhat unusual but not unattractive. The Sports Prinz is a handsome two-passenger fast-back coupe that it well proportioned, appearing larger than it really is. There is a back seat for children. With engine in the rear, all-independent suspension, all-synchro four-speed gearbox, the entire Prinz line features excellent roadholding, quick, light steering with a 28-foot turning circle, and good braking.

Because of its small size, prime function of the Prinz would seem to be city travel and local commuting. However, the extreme economy, good durability and relatively high cruising speed should make an occasional cross-country trip practical. Distribution is limited to major cities.

General specifications: Wheelbase, 78.5 inches; front and rear tread, 47.2; overall length, 123.7; width, 56; height, 54.

Other series: Two-door sunroof sedan, $1487; Prinz 30 two-door sedan, $1498; Sport Prinz coupe, $1998.

OPEL REKORD, two-door sedan, $1957.50, Germany

Extensive restyling plus detail improvements to suspension and brakes mark the 1961 Opel.

Following popular European practice, the Opel mates a relatively small four-cylinder engine with the largest possible body in keeping with decent performance and economy. The elements fit together nicely: The 90.8-cubic-inch engine develops 56 hp at 4400 rpm, enough for a top speed of about 78 mph and fuel economy in the low- to mid-20s. The use of a three-speed stick shift and no special power assists will remind the motorist of some cars of the late '40s. It handles easily in traffic, has a softly sprung, comfortable ride and will take five adults plus luggage on a cross-country trip on demand.

Fit and finish are in line with the high quality of German automotive craftsmanship, while service and parts are available from many Buick dealers. It is understandable that Opel promotion may be de-emphasized in favor of the new smaller domestic Buicks, but they are in no way comparable. The Opel merits serious consideration by anyone contemplating the purchase of a medium-sized economy sedan or wagon.

General specifications: Wheelbase, 100 inches; front and rear tread, 50; overall length, 174.5; width, 63.6; height, 58.7.

Other series available: Caravan two-door station wagon, $2262.60.

PANHARD PL-17, four-door sedan, $1697, France

Its claim to be the oldest make of car in the world certainly does not imply conservatism; on the contrary, the Panhard is unorthodox. It combines one of the roomiest and largest economy sedans with an engine that is proportionately quite small. Yet there is no sacrifice in performance.

How is it done? Unit construction keeps the curb weight of the streamlined sedan to 1875 pounds. The interior is nearly all usable because the engine and gearbox are both ahead of the front wheels. With front-wheel drive there is no tunnel, which means that seating six adults is not impractical. Finally, an oversized trunk, lighted and carpeted, carries an American-sized load of luggage.

Lift the hood, which includes fenders, and the complete drive train is accessible. Engine is an air-cooled four-stroke flat twin, 51.9 cubic inches, developing 42 hp at 5000 rpm. (A 50-horse Tiger engine is available.) An unusual feature is the use of torsion bar springs to close the overhead valves. Top speed is slightly over 80 mph, with comfortable cruising possible at 70. Economy is sensational — up to 40 mpg not unusual.

Suspension of the front-wheel drive is important to handling. The Panhard uses two transverse leaf springs plus telescopic shocks at the front; at the rear are torsion bars on a tubular beam axle that sweeps forward to a center pivot point. Ride is good for a sedan of this class. Handling and roadability, highlighted by rack-and-pinion steering, are amazing, whether darting through traffic or crossing a mountain pass. Because a good amount of gear changing is to be expected, it should be mentioned that the gearbox is four-speed, synchro on the top three, and column controlled.

Despite the fact that the Panhard offers a lot of car for the money, it has never been a big U.S. seller. This may be partly due to the two-cylinder engine, whose characteristic roughness has never found favor here. Service and parts will be found most readily in major cities.

General specifications· Wheelbase, 101.2 inches; front and rear tread, 51; overall length, 180; width, 65.5; height, 57.5.

Other series: Grand Standing four-door sedan, $1725.

RENAULT 4-CV, four-door sedan, $1095, France

Largely overlooked by the American buying public, it should be remembered that the 4-CV heralded the "Renault invasion" a few years ago. Now it plays a subsidiary role to the popular Dauphine. On its own merits, however, the tiny sedan is designed to provide utility transportation for the cost-conscious motorist and has been especially successful as a second car for suburban families.

Carrying four persons and a modest amount of luggage, the 4-CV derives power from a rear-mounted 45.6-cubic-inch four-cylinder engine that is conventional with overhead valves and water cooling. The 28 hp developed at 4100 revs drives the rear wheels through swing axles, while all four wheels are suspended with coil springs. Performance is not remarkable, top speed just pushing the 70-mph mark. On the plus side, fuel economy ranges up to 40 mpg, while its very smallness makes the car easy to park and slide through traffic. Unlike most small cars, the 4-CV has a three-speed transmission that minimizes shifting. A Ferlec automatic clutch is available at extra cost.

There is a broad network of dealers to insure excellent service and parts supply.

General specifications: Wheelbase, 82.9 inches; front and rear tread, 48; overall length, 142; height, 58; width, 56.

Other series available: Add $60 for sunroof; $95 for Ferlec automatic clutch.

RENAULT DAUPHINE, four-door-sedan, $1385, France

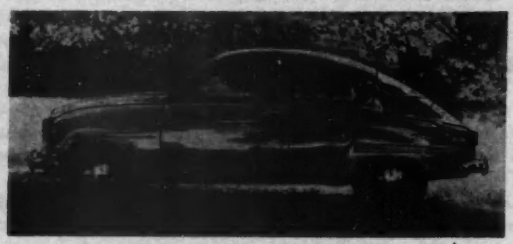
With only modest changes in the standard Dauphine, the introduction of the Gordini Dauphine, and a price cut on all

continued on page 45

The Economy Imports

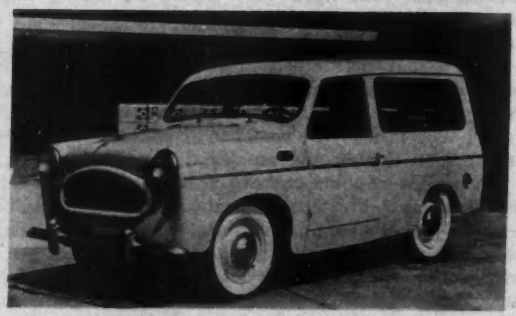
RENAULT DAUPHINE

PANHARD

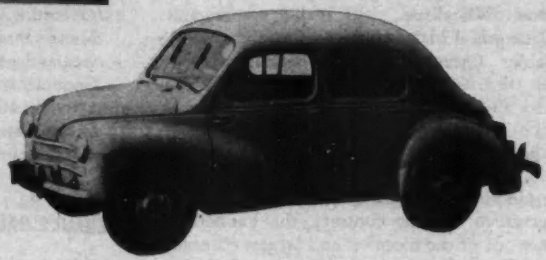


SAAB

SABRA



SIMCA ETOILE



RENAULT 4-CV

models, the '61 Renault line shapes up as one of the most popular economy car groups in America.

Four passengers can be seated in relative comfort with good head- and legroom for the car's overall size. In addition there are seven cubic feet of luggage space under the front hood. The ride, through an all-independent coil spring suspension system, is first rate. An auxiliary suspension called Aerostable is now standard and greatly improves riding qualities over earlier models. Briefly, it consists of pneumatic bags and rubber pads that vary spring rate with load and road impact. Handling is generally satisfactory but as with many rear-engined cars there is a different "feel" during fast cornering.

The engine develops 32 hp at 4250 rpm. Of conventional inline ohv design, the water-cooled Four displaces 51.5 cubic inches and is sturdy enough to rev well past its horsepower peak with safety. Top speed is about 72 mph; one of the car's points is that it will cruise very close to that speed with surprisingly little engine or wind noise. Fuel economy ranges up through the mid-30s without special driver effort. A spidery shift lever is floor mounted and moved through the standard H-pattern for the three forward speeds. Optional is the Ferlec automatic electro-magnetic clutch which creates two-pedal control.

Horsepower of the Gordini version is increased to 40, although displacement remains the same. Performance is, therefore, increased without sacrificing economy. In addition, there is a four-speed transmission and fancier interior (Dauphine body shell) which should make the Gordini quite desirable.

General specifications: Wheelbase, 89 inches; front tread, 49; rear tread, 48; overall length, 155; height, 57; width, 60.

Other series available: Add $55 for sunroof; $95 for Ferlec automatic clutch; Gordini Dauphine, $1650.

SAAB, two-door sedan, $1895, Sweden

Improvements in the 1961 Saab are characterized by styling, interior and engine modifications, which the factory claims reflect the needs of American motorists.

The aerodynamic five-passenger body now has a wrap-around rear window, higher roofline, wider rear seat and operable rear side windows. Seats fold for car sleeping, and an unusual heating-ventilating system defrosts rear and side windows. The two items are standard equipment.

Power has been raised from 38 to 42 hp at 5000 rpm by increasing displacement to 51.3 cubic inches. The three-cylinder, two-stroke engine drives the front wheels, providing traction and handling qualities that have proven themselves outstanding in the unique sport of ice racing. As with most two-cycle engines, the owner must remember to add the proper amount of oil with the gasoline at each filling.

The station wagon, four inches longer than the sedan, will carry driver plus 950 pounds of cargo in a 39-cubic-foot area, or provide an 81-inch-long bed, or carry seven passengers (two in a rear-facing back seat). Engine is the same and delivers about 30 mpg, as does the sedan. Another model, the GT sedan, designed for rallies and racing, is more expensive but is fitted with a more powerful engine, a four-speed transmission and such extras as a Halda Speedpilot, average speed calculator for rallies and a four-speed gearbox.

Built by an aircraft firm whose primary business is jets, the Saab is constructed with aircraft-like quality. Of course, any car that can withstand the severe climate and roads of Sweden has to be rugged. Until now distribution has been limited to the eastern portion of the U.S. It is anticipated that the firm will expand the sales and service nationally.

General specifications: Wheelbase, 98 inches; front and rear tread, 48; overall length, 158; width, 62, height, 58.

Other series available: Two-door station wagon, $2265 ($2395 with four-speed transmission); GT two-door sedan, $2788.

SABRA, two-door station wagon, $2299 (West Coast p.o.e.), Israel

Notable as the first automobile to be manufactured in Israel, the Sabra can claim another first as the only utility vehicle built from fiberglass. Use of this lightweight, easily worked material is one way for a country whose heavy industry is still in its infancy to get into the automobile business.

The Sabra lineup, in addition to its station wagon, sedan and panel truck, includes a two-seat sports roadster with sleek, graceful lines and a removable hard top. Sports car power is from a British Ford Consul engine (103.9 cubic inches, 61 hp) and performance should be good. The workhorses of the series, however, are powered by a smaller engine, specifically the short-stroke, 61-cubic-inch, 39-hp Ford Anglia. Because of its reliability and economy the Anglia was probably a wiser choice than attempting to develop and build a new engine. The Sabra utility group will never be heralded for brilliant performance, but its speed and handling are adequate for the job intended. Rated capacity of the wagon is two passengers plus 880 pounds of cargo or four passengers and luggage. Price of the station wagon, incidentally, includes radio, heater and whitewalls.

Although very few Sabras have reached the U.S., current plans are to establish dealers and market the cars in limited quantity. Delivery of the sports car and two- and four-door sedans is expected to start this year.

General specifications: Wheelbase, 85 inches; overall length, 150; width, 61.

Other series: Two-door sedan, $N.A.; four-door sedan, $N.A.; sports roadster, $N.A.

SIMCA ETOILE, four-door sedan, $1658, France

From Simca's extensive array of models imported in past years, it has been decided by Chrysler, which owns 25 per cent of Simca-France, to bring in only the best seller during 1961, the economy Etoile in the Aronde series. The reasons are varied but probably the more expensive Simcas offer direct competition to Chrysler's own compacts.

The car is apparently unchanged for '61, but there is one important modification: The Flash engine is superseded by the Rush version. This means that horsepower is up from 48 to 52 (at 4900 rpm), and more important, the crankshaft now has five main bearings instead of three. Displacement remains at 77.4 cubic inches, but the redesign makes the engine much sturdier than before.

Interiors are spacious and comfortable, the unit body carrying four (five less comfortably) adults and a substantial amount of luggage. Riding qualities and handling are really outstanding. Contributing factors are independent front suspension with a stabilizer bar and a rear suspension that incorporates coil and light variable-rate leaf springs. This rear arrangement is said to provide a slightly lower unsprung weight than with an orthodox suspension.

A four-speed gearbox, column controlled, is synchronized on the top three gears. Acceleration through these gears is more than ample to stay with and ahead of traffic, while top speed is about 80 mph. Fuel consumption generally is in the middle 20s, quite in keeping with car size, engine and performance.

Simca service is available at many Chrysler-product dealers, and Chrysler is trying to set up single-line Simca dealers.

General specifications: Wheelbase, 96.2 inches; front tread, 49.3; rear tread, 49.2; overall length, 165.5; width, 61.7; height, 56.7.

Other series: No others available.

The Economy Imports

TOYOPET TIARA, four-door sedan, $1613, Japan

Here is a most unusual exercise in the art of designing and building a small car — the Tiara. It has rolled into one package, elements that would seem incompatible — low initial price, a load of luxury features, higher than normal horsepower for the class, attractive styling, economy of operation and quality throughout. It would appear that the manufacturer is following the build-a-better-mousetrap theory.

As a four- or five-passenger car, the Tiara is roomy and comfortable with interior appointments that are complete, functional and well executed. Many extras on more expensive cars are part of the Tiara. For example, standard equipment includes an electric razor outlet and back-up lights.

Riding comfort goes right along with the obvious good seating and is dependent upon the unusual suspension, which also helps account for the Tiara's roadability. Front suspension is Chrysler-like, with a pair of longitudinal torsion bars and upper and lower control arms. At the rear of the rigid rear axle is a pair of trailing arms for location, plus leaf springs whose ends run from the axle forward. At the front end of each spring is an adjustable coil that supplements the springing. The system keeps cornering flat and makes for good directional stability.

The four-cylinder engine (88.7 cubic inches) produces 75 hp at 5000 rpm. One of its more intriguing features is a two-barrel carburetor with progressive linkage as an aid to economy. The Tiara, incidentally, gets from 24 to 29 mpg during normal driving. Top speed is about 85 mph. Low-end acceleration is very good, but the use of a three-speed transmission reduces the acceleration rate past 45 mph.

The Crown Custom four-door is built on a 100-inch wheelbase and is slightly larger throughout. Constructed with the same attention to detail and quality as the Tiara, the Crown has a larger, more powerful engine that develops 95 hp at 5000 rpm from 115.75 cubic inches. Maximum speed is about 95 mph with fuel economy comparable to the Tiara.

General specifications (Tiara): Wheelbase, 94.5 inches; front and rear tread, 48.4; overall length, 157.1; height, 56.7; width, 58.7.

Other series available: Crown Custom four-door sedan, $1795; four-door station wagon, $2080.

TRIUMPH HERALD, two-door sedan, $1849, Great Britain

Those crisp, Italian-looking body lines clothe an economy sedan that differs markedly from what has been accepted as conventional in the fields of suspension, maneuverability and servicing. While the rest of the Herald's features are more straightforward, the sum total is an eminently satisfactory automobile.

All-independent suspension (swing axles at the rear) is unusual in a car that uses a conventional front engine-rear drive layout, yet that is how the Herald does it. Advantages lie in areas of riding comfort and general stability, both of which are excellent. Because the front wheels turn so sharply via rack-and-pinion steering, the car all but parks sideways. Its really amazing 25-foot turning circle makes it incredibly easy to handle, whether parking or nipping through traffic. Finally, routine lubrication service has been reduced to a bare minimum through extensive use of nylon and rubber bushings. In fact, only four points need regular lubing, and the most frequent of those is every 6000 miles.

Four passengers will find room — if not to really stretch out — at least for reasonable comfort. In the trunk are 13 cubic feet of hauling space, which can be increased by folding the rear seat downward. On the same chassis the sports coupe and convertible bodies are similar to the sedan, the main changes being top styling and less rear seat space.

The engine is a simple and reliable four-cylinder 57.8-cubic-inch unit developing 40 hp at 5000 rpm. It will haul the car past 70 mph, cruise it at 65, and deliver economy that should satisfy those watching their gasoline budgets. Engine in the sports coupe and convertible turns out 50 hp at 6000 revs. The increase comes from compression raised to 8.5-to-1 (from 8) and a pair of SU carbs instead of a single. The extra punch adds acceleration and about 10 mph to the top speed.

Some 700 dealers in 50 states are eager to keep their company's product on the road and in good repair.

General specifications: Wheelbase, 91.5 inches; front and rear tread, 48; overall length, 153; height, 52.5; width, 60.

Other series available: Sports coupe, $2149; convertible, $2229.

VAUXHALL VICTOR, four-door sedan, $1957.50, Great Britain

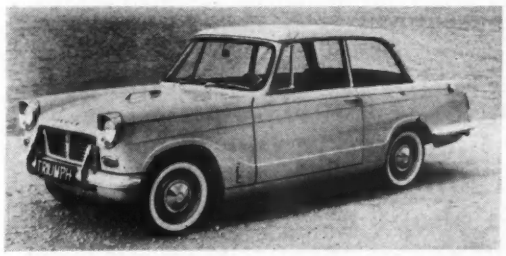
Styling refinements, inside and out, and a minor engine modification are the sum total of Vauxhall's changes for '61. Because the Victor carries very strong but scaled-down Detroit influences, drivers accustomed to larger cars should have little difficulty making the transition to this import.

Designers have taken into account adult requirements, and five (or six) passengers will find considerable comfort on the bench seats. The body, which features unit construction, has a larger rear window this year for increased visibility. The three-speed, column-controlled transmission has the familiar pattern plus a synchronized first gear, useful in traffic.

Remarkably smooth and quiet, the four-cylinder engine (92 cubic inches) is conventional in its ohv design. New bearings are said to provide higher load capacity and longer life. Fifty-five horsepower, developed at 4200 rpm, is good for about 78-mph top speed. Suspension is independent at front; at the rear is a solid axle carried on semi-elliptic leaf springs.

TOYOPET TIARA

VOLKSWAGEN



TRIUMPH HERALD

Distributed and sold in this country by Pontiac dealers, the Vauxhall has demonstrated itself to be a reliable and satisfactory family-economy import.

General specifications: Wheelbase, 98 inches; front and rear tread, 50; overall length, 167.7; width, 63.5; height, 58.

Other series available: Four-door station wagon, $2262.60.

VOLKSWAGEN, 2-door sedan, $1565, Germany

Traditionally the largest selling import, the Volkswagen symbolizes the small economy sedan to many Americans who are otherwise unfamiliar with non-U.S. autos. Boasting 28 major and minor improvements for 1961, the reasons for its remarkable public acceptance are many, but quality sums up a great part of the story. The beetle-shaped unitized body, which will carry four adults (five on occasion), is tightly made, while interior and exterior trim is simple but virtually flawless. Surprisingly roomy, there is space for a couple of large suitcases behind the rear seat and increased space (from previous models) under the front hood that makes the car practical for touring.

The air-cooled flat-opposed four-cylinder engine, displacing 72.74 cubic inches, has been given four more horses, now up to 40 hp at 3900 rpm. Also the floor-controlled four-speed transmission has a major improvement via a synchromesh first gear as well as slightly altered ratios throughout. This means better flexibility in traffic, increased acceleration and a top speed (also cruising) rated at 72 mph. There has been no sacrifice in the VW's famed economy, which rarely drops below 30 mpg in city traffic and will range into the high 30s on the open road.

The independent rear suspension is predicated upon the rear engine placement, while torsion bar suspension all around provides a ride that soaks up bumps in a way that belies the car's small size. Because of the weight bias to the rear there is some tendency for the car to be susceptible to crosswinds, but it is not serious.

A good part of the VW reputation is founded upon its reliability and the fact that repairs, when they are needed, are relatively inexpensive. Owners will find an excellent network of factory-authorized dealers across the country and the spare parts supply is generally excellent. As a firmly established import, the Volkswagen is one economy car whose design is quite compatible with U.S. conditions.

General specifications are: Wheelbase, 94.5 inches; front tread, 51.4; rear tread, 50.7; overall length, 160.6; height, 59; width, 60.6.

Other series include a sunroof sedan, $1655; convertible, $2055; Microbus (station wagon), $2245; and deluxe Microbus, $2620.

VOLVO 544 SPECIAL, two-door sedan, $1895, Sweden

One of the largest sedans in the economy field, this relatively new addition to the 544 series is in effect a stripped version of the PV-544. Mechanically it is identical with two notable exceptions — a lower-horsepower engine and a three-speed transmission instead of the PV's all-synchro four. But all of the famed Volvo ruggedness and quality are included for the price. Externally, the only difference is the Special's lack of chrome.

Power comes from an ohv four-cylinder, 97-cubic-inch engine developing 60 hp at 4500 rpm. Engine in the PV is essentially the same, but it delivers 85 horses at 5500 revs through higher compression (8.2:1 versus 7.4) and a pair of SU carburetors instead of a single Zenith. Owner experience indicates that both engines have a surprisingly long life expectancy. Performance and handling are very much in the sporting category. Cornering and braking are excellent and the ride is firm but quite comfortable. Top speed of the more powerful PV is almost 100 mph with cruising gas mileage that ranges into the high 20s. Conversely, the Special performs a little less brilliantly, making it up in fuel economy.

The unit body is solid, free from drafts and rattles. Front suspension is independent with coil springs and a stabilizer bar; the rear axle rides on coil springs, a pair of rubber-mounted support arms, two torque arms and a track bar, accounting for the car's roadability. Five adults will find stretch-out room, and there is a generous trunk. Included are safety belt fittings for both front and rear seats.

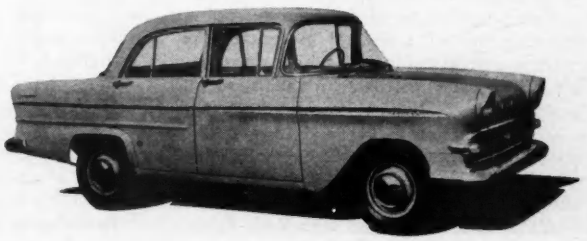
Three distributors maintain a network of Volvo dealers throughout the country who are well equipped to keep their customers on the road without delay.

General specifications: Wheelbase, 102.5 inches; front tread, 51; rear tread, 51.8; overall length, 172.5; width, 62.5; height, 61.5.

Other series available: 544 Special Deluxe two-door sedan (60 hp), $1995; PV-544 two-door sedan, $2195.

VOLVO SPECIAL

VAUXHALL



Though the supply dwindles, truly fine cars in the old tradition are still made in the shops of Europe

Imported Cars For 1961

THE HEIGHTS OF LUXURY

by GRIFF BORGESON

THE TERM "FINE CARS" still survives on used-car lot banners, but it is hollow and empty in terms of its pre-World War II meaning. To illustrate, consider the Deuce Ford and the 1932 KB Lincoln. The Ford was a good and wonderful car; the Lincoln was a fine and luxurious car. The Lincoln cost roughly ten times more than the Ford, and anyone's grandmother could tell why at a glance as easily as she could distinguish between the relative virtues of a pup tent and the Parthenon. To the mechanically literate the differences between the functionally adequate and the fine car were profound and, for many, respect for the virtues of the latter amounted to religious devotion.

There were scores of fine chassis worthy of the artistry and craftsmanship of scores of American and European coachbuilders, but technological progress has reduced the chassis to a handful and almost has brought about the extinction of the coachbuilder. Traditional coachbuilding in the United States is a totally dormant, if not a dead, art. In Europe, always the inspiration for our own traditional automotive architects, fine coachbuilding barely survives. England's vast array of coachbuilding firms has dwindled to three: Park Ward and H. P. Mulliner (both connected with Rolls-Royce) and the independent James Young. Paris, the Milan/Turin of the classic period, has lost such immortal firms as Saoutchik and Figoni et Falaschi. Chapron still finds some work to do, but only Facel-Metallon keeps busy. The finest German bodies of the classic period were built for Mercedes-Benz in the company-owned Sindelfingen plant, which is more active than ever today. Italy is unique in that all its great traditional coachbuilders, with the exception of Castagna and Stablimenti Farina, are flourishing today in a market that has brought many prosperous and inventive newcomers to their fold.

The work of each of these has a marked national or cultural flavor. With the exception of the Jaguar 3.8 British coachwork, today is precisely where it was twenty years and more ago, although steel sheet generally has replaced aluminum. In fact, British luxury car coachwork has become much more traditional and conservative than it was in the Twenties and Thirties. In place of the variety of phaetons, roadsters and convertibles that were built for fine chassis then, today we have the stereotyped town carriage produced in volume. These vehicles are fine, but the dearth of imagination which they reflect is scarcely exciting. It's like all women wearing identical hats; it's easy to get fed up with walnut burl when everybody who is anybody is encased in identical walnut burl, shaped with the same set of cookie cutters. How about Siberian ash inlaid with ebony for a change? Tradition is one thing; being mired in a rut is another.

Chapron's lovely coupes on Talbot chassis (scarcely any production at all) and the Facel-Vega line have a gay and graceful spirit that suggests their Parisian origin. The Facel-Vega HK-500 and Excellence are heavily indebted to American design ideas but are not imitative and do not for a moment lose their Continental identity.

The evolution of Mercedes-Benz body design has been particularly interesting. In place of the bombastic styling of the classic era, M-B's packaging now is exquisitely functional and discreetly attractive. This cool, tasteful efficiency permeates modern German industrial design.

All the thrilling excitement, the spectacular, stimulating, beautiful, often bizarre new ideas in transatlantic coachwork today, of course, come from the swinging, endlessly fertile shops of Milan and Turin. In addition to the output which bears their nameplates, the best of these designer-builders are constantly at work under contract to American and other European automobile

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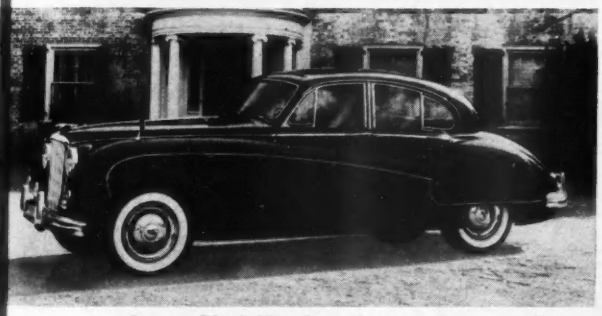
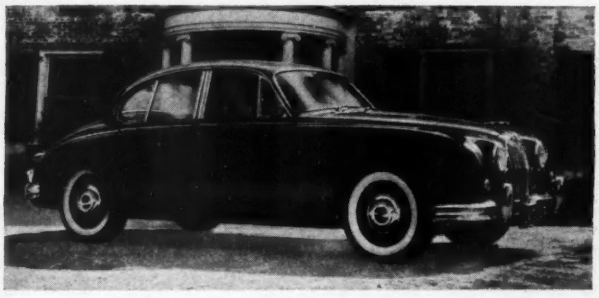
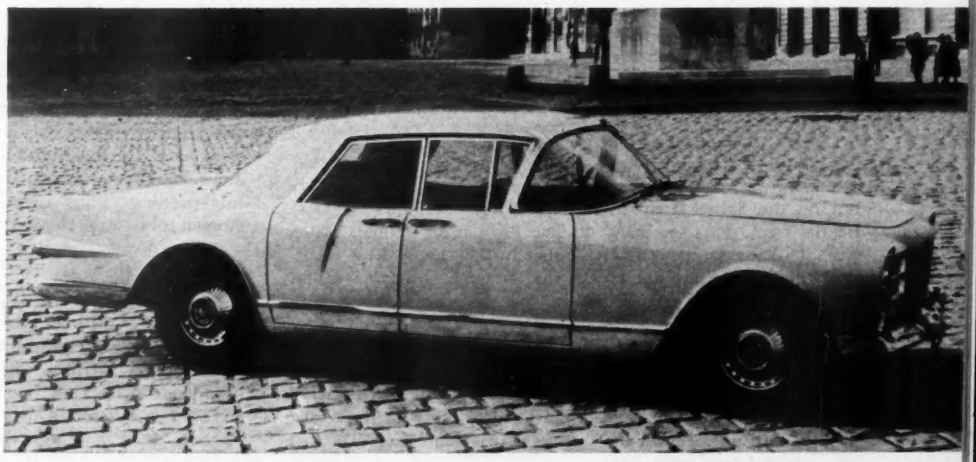
Rolls-Royce Silver Cloud II is a luxurious carriage in the classic tradition. This standard saloon has a p.o.e. price of $15,655 but with usual extras, costs a good $1,000 more. Bentley S-2 saloon, made by same firm, is identical except for radiator, costs $300 less.



Jaguar Mark IX, above, is a car of rare quality, is beautifully executed and appointed in same tradition as Rolls-Royce. It is difficult to justify the $10,000 difference between the two cars. Jaguar 3.8, right, has all the richness of the IX, but in place of traditional lines, has an exciting, up-to-the-minute, sporting appearance. With a base price of $4815, it is a remarkable buy.



Four-door Excellence is very limited-production super-luxury model of the Facel Vega line. Its base price is just over $11,000, but even the stainless steel trim is extra, and fully-equipped car costs $2300 more.



manufacturers. The cross-fertilization which has taken place between Detroit and industrial northern Italy has produced a new styling idiom which is best typified by the squared-up, crisp productions of Pininfarina, wherein the best of both schools is blended, usually with tasteful, gracious results.

The crisp, squared-up form which was pioneered by Ford Motor Company's George Walker is practicable, thanks to improvements in sheet steel alloys in the last decade which permit the stamping of sharp corners. It is interesting to note, however, that the so-called crisp theme goes back to the coachbuilt British razor-edged saloon of the classic period and, prior to that, to a variety of boxy but elegant horse-drawn carriages.

And now let's take a leisurely look at what is available to the luxury-car buyer today.

BENTLEY & ROLLS-ROYCE

"Why do people buy these cars?" I asked a salesman for the two marques at a recent major auto show. Then I stood back, awaiting a pitch in which interminable virtues would be enumerated.

Instead the young man said, looking archly down his nose, "They buy them because of the price tag on the windscreen. It's as simple as that."

There's much truth in this cynical statement. The two marques are identical except for their radiator shells and, consequently, hood lines. R-R makes the Bentley because some folks feel that ownership of a Rolls is just too brazenly, blatantly ostentatious. But on the Sunset Strip these days Rollses are thick as flies; Bentley's you don't see many of. The Rolls is an ultimate status symbol. Alike as they are, symbolically they are worlds apart. The difference in average eyes is that between wearing a carnation in your lapel as opposed to the ribbon of the *Legion d'Honneur.*

Actually, of course, there is much more to these distinguished carriages than the one-upmanship of purchase price. R-R in the mid-1950's was an innocent bystander in our Affluent Society's import market when its sales began to soar. The firm responded with alacrity in meeting the unforeseen demand. Recently R-R has gotten with the domestic scene and, for the first time in its history, has adopted the hard sell, Mad Ave style. A typical quote:

"A brain-box that is polished with ground oat husks; cadmium-plated cotter pins; a walnut-trimmed interior that unites utter silence with the luxurious smell of leather — such are the tremendous trifles that make the Rolls-Royce so coveted at $15,665. Chassis is guaranteed *three years.*"

There have to be a lot of tremendous trifles to justify such a guarantee, but tremendous basics play a basic part. Specifically they are unimportant to the cynical salesman's clients but, generally and in terms of total impact, the R-R and Bentley virtues, both trifling and basic, are the foundation of the enduring acceptance and stature of both makes. What are these virtues?

Fine, conservative engineering and body architecture. A unique degree of meticulous attention to detail in design, execution and finish. The aura and substance of quality, elegance and dignity in the traditional British grand manner. In R-R advertising the emphasis wisely is focussed on snob appeal, but without these virtues the snob appeal would be without foundation.

These machines handle magnificently. They remain amazingly flat during hard cornering. There is nothing Detroit-soft about their ride; it's definitely on the firm side but, of course, has nothing of harshness about it. On twisting, Bugatti-suited mountain roads they make themselves at home with shocking ease. They are heavy but move with easy grace, and the automatic transmission's kickdown produces literal jackrabbit acceleration.

Sophisticated Lancia Flaminia V-6 chassis with transmission on rear axle and full independent suspension has most varied coachwork of all luxury makes, with choice of bodies by several builders. This crip, clean coupe by Pininfarina has base price of $6355.

For me the most impressive single quality of the R-R and Bentley is the hypnotic relaxation that these cars induce in their drivers and passengers. Their silence has been over-rated, exaggerated. But their comfort, ease of operation and air of total security and competence have to be experienced to be comprehended. The experience is not only effortless, but is so lulling and relaxing and luxurious that staying awake is the driver's only problem. More than their tremendous trifles, these cars' shrewd, subtle underlying concept deserves praise.

FACEL VEGA

Of the handful of surviving European luxury cars Facel Vega is the only one of recent origin and is one of the most significant, beautiful and exciting. The line contains three models, each in its distinct price class but all sharing a distinctive and unmistakable family resemblance.

Least costly and least luxurious of the line is the recently

Flaminia's 150-cubic-inch engine comes in various stages of tune, from 112 hp in the Pininfarina four-door sedan shown here to 131 hp in the more sporting coupes by Carrozzeria Touring and Zagato. This four-door, is the largest car built in Italy today has a base price of $5998, while the extras add $580.

introduced Facellia. This elegant convertible coupe has a port-of-entry base price of $3995 but, when all the parts of the package are accounted for, it ends up costing about $4700. The Facellia properly is a sports-touring machine rather than a luxury vehicle. Its steering and handling are superb, its disc brakes quite good. The 100.4-cubic-inch, dual-overhead-camshaft engine is remarkable for its silence. Its torque curve is peaky and the cams don't really come in until about 2500 rpm, making liberal use of the gearbox mandatory for exciting performance. The four-speed, full-synchro Pont-a-Mousson transmission is sheer delight to use and the car is a ball to drive.

The well-known Facel Vega HK-500 has captured the hearts of a great many Americans of discriminating taste on the basis of its svelte, commanding appearance alone. The grace, harmony and purposefulness that show on the surface pervade the entire vehicle. It has a machined-from-billet feel. The pleated leather interior is pure opulence. The acceleration and top speed provided by the 383-cubic-inch Chrysler engine make the HK-500 a formidable gran turismo machine if you want to drive it that way. Or, by using smaller throttle openings, it can be driven as a stately but *chic* town carriage. The highly original tubular frame is immensely stiff and the car's cornering abilities plus excellent ride set a standard for others to aspire to. This two-door sedan has a nominal p.o.e. price of $7995 but with extras, some of which are quite essential, it's easy to pay $9800 or so for an HK-500.

The new Facel Vega Excellence is a long-wheelbase, four-door, super-luxurious development of the HK-500. Annual output of the Excellence is only about 60 units, making unit cost high. It starts out with a p.o.e. price of $11,017 but tends to wind up delivering for over $13,000. The luxury features found in the HK-500 all are in the Excellence, only more so. No one shopping in this market should fail to test drive these splendid cars. My only criticism: the simulated-by-paint walnut burl of the instrument panel can be improved upon.

JAGUAR

From its Standard Swallow origins in the 1930's Jaguar has been consistently outstanding for producing cars of exceptional beauty, grace, performance, quality and astonishingly low cost. These characteristics have improved with each model change and all credit for this goes to the autocrat who is single-handedly responsible, Sir William Lyons.

The 3.8 Jaguar currently is the highest evolution of the 2.4 and 3.4 models of recent years. It can best be compared with the small Rolls, Hispanos and Mercedes of the classic era. It is a compact *luxury* car in the fullest sense of the adjective. It is surfeited with the substance of quality and it remains a mystery how so much can sell for so little; the p.o.e. base price is $4815.

The manufacturer describes the 3.8 as a sports sedan which has no exact American counterpart. It has no counterpart anywhere. Its clean, sophisticated, dashing beauty has the essential flavor of the Packard sports models of the late Twenties and early Thirties: aristocracy with vivacious flair.

The 231-cubic-inch, dual-overhead-cam engine, which first was introduced on the XK-120, has a decade of refinement and perfection behind it and in today's form is particularly notable for its high torque. The 3.8 is a deeply satisfying, thrilling car to drive. With easy use of the four-speed, manual-shift transmission, zero to 60 mph can be achieved in about nine seconds flat, and the car will zoom to 100 in just over 25 seconds. Top speed is about 125 mph and fuel consumption is remarkably low. Automatic transmission is optional, as is excellent power steering. Dunlop disc brakes are standard on all four wheels, and limited-slip differential is standard.

continued

THE HEIGHTS OF LUXURY

The finish of the four-door coachwork is very good and interior appointments, including instruments, woodwork and leather, are excellent. The 3.8 unquestionably is one of the best automotive buys in the world today.

For the owner who requires a carriage possessing traditional dignity with no visual trace of sporting stigma, Jaguar offers the voluptuous Mark IX. It is the latest evolution and refinement of the Mark VII four-door sedan; its radiator shell more closely than ever resembles that of the Bentley. The Mark IX's p.o.e. base price is $5640 and the total, with all options, comes to about $6200. It is very difficult, to say the least, to see the justification of the $10,000 difference in price between this car and the Bentley.

There is one big difference: Bentley and Rolls are very quiet, while the Mark IX maintains a healthy exhaust note and makes no fetish of totally silencing the same exciting engine that powers the 3.8. Otherwise, the most critical connoisseur of automotive quality will have to look hard to find any flaws or shortcomings in the grand-manner-classic Mark IX, from bumper to bumper or carpet to headliner.

Mark IX's can be ordered with manual-shift transmission, but those normally imported are equipped with a very satisfactory automatic transmission . . . if you can stomach such desecration of a kissin' cousin to the D-Jag. In my opinion, the automatic breaks the spirit of this very spirited car, renders it a dull shadow of its "real" self. But, with automatic, it certainly is an effortless car to drive.

The ride of these two Jags differs. The Mark IX is the softer of the two but still is beautifully solid. Brakes, steering, handling all are of a very high order. My subjective feeling about the Mark IX is that it is a $10,000 automobile that somehow can be bought for six.

LANCIA FLAMINIA

In Italy today the Flaminia is *the* genteel status symbol among cars. It is unique in its class in that the basic chassis is readily available in a dramatic range of body styles by three of the world's leading coachbuilders (R-R and Bentley have variety but it's all on one theme). Least costly is the Pininfarina four-door sedan with a p.o.e. price of $5998 and a total, with full complement of goodies, of around $6580. This is a typical Farina blending of American and Italian architectural themes, is the most austere and restrained design of the line, is best visualized as a fine family or executive vehicle; it has the air of a limousine. The Saxomat automatic clutch is available optionally on this model only, in combination with column shift. It is difficult to imagine any devotee of Italian machinery preferring this to the standard, fine, typically-Italian stick-shift gearbox with synchromesh on all four gears. The Pininfarina coupe, base priced at $6355, is a more artistically balanced and harmonious version of the same body theme which, by mere changes in proportion, replaces the sedan's dignity with graceful elegance. The rear seats of both models are contoured to give passengers bucket-seat support.

The Carrozzeria Touring gran turismo coupe can be described as an Italianized two-place Thunderbird and the result is an extremely lovely car. Dual headlights are one of its notable obvious features but sleek, subtle lines are its greatest virtue. There is considerable luggage space behind its bucket seats and its trunk is unusually roomy. Base price is $6485 and delivery is likely to run around $6850. A tasteful, beautiful convertible version of this body is available at no increase in price.

Last of the line and with the same base price is the aluminum-bodied, super-light, aerodynamic Zagato coupe, every inch and once a thoroughbred. Its top speed is about 118 mph as opposed to 112 mph for the Touring-bodied cars, 105 for the Pininfarina coupe and 100 for the heavy sedan.

All these cars have elegant leather upholstery in common, and their 150-cubic-inch V-6 engines all share 131-hp tune, with the exception of the sedan, which is tuned for silence, durability and 112 hp. Although Lancia literature emphasizes the silence of this engine it is the least silent of any covered in this review of luxury cars. A highly audible, characteristic, busy whirr emanates from the valve train and is augmented by a modest level of sound from the transaxle at the rear.

Driving the superb Lancia Aurelia was a great motoring experience even though its speed and acceleration were not notable. The same performance criteria have been applied to the

Mercedes-Benz 300 Automatic combines maximum dignity and impressiveness with minimum ostentation. Finish is exquisite, interior is a symphony in tasteful luxury. Fuel injection engine is the same as overhead-cam Six which powers 300-SL; this version develops 180 hp from 183 cubic inches. The automatic transmission is standard.

Flaminia. The hotter coupes, of course, are more exciting to drive than the sedan but all have the outstanding roadability, steering, brakes and thoroughbred feel (not with Saxomat) that are part of the Lancia tradition. All give the driver that sense of great security that comes from knowing that his machine will respond far more than adequately to any command.

MERCEDES-BENZ

The Mercedes-Benz tradition of quality and luxury is as old as the automobile itself. These cars always have stood apart, have been leaders, innovators. The current M-B line of luxury cars stands alone in the world industry. In place of the snarling, supercharged, pre-war peasant impressers of overwhelming aspect, today's luxury Merks are almost primly self-effacing in appearance. But users of 220-SE's, for example, incline to term these machines the most perfect in automotive history. Their argument is difficult to fight.

Externally the 134-cubic-inch 220 series and the 183-cubic-inch 300 have nothing of the gee-whiz spectacular about them. They are cool and sedate, distinguished in a very low-key way. They, too, have taken important body-design cues from Detroit . . . and benefitted from them. For a change, their appearance suggests nothing of their performance. Like the 300-SL they are schizoid vehicles, fully prepared to lead double lives. They can be driven as dully as you please or, if you happen to be a spirited driver, they can be a thrill over every inch of the road. This cannot be emphasized enough: a definite measure of the boiling blood of the immortal Grand Prix machines of the pre- and post-war eras is in these cars.

Take the 220. It has a pair of single-throat carbs. The 220-S has a pair of dual-throats. The 220-SE (E for *einspritz,* injection) has Bosch injection into the intake manifold, as has the 300 Automatic. This is smoother than the combustion-chamber injection of the 300-SL, produces somewhat less peak power. It performs uniquely. You can go through all four full-synchro gears without touching the throttle and never lug the engine. It just pulls with steam-turbine smoothness. This is possible only with the injected engine.

You step into the car, which is ice cold. A turn of the ignition key and the engine is healthily alive. Its idle cycles up and down in response to automatics which are sensitive to engine and ambient temperature and to barometric pressure. At 10,000 feet, the automatics still feed the ideal mixture to the cylinders.

The engine runs eagerly and freely from the start. If you want to wind it it will respond with a punch in the back in every gear, including fourth. It's a sports car in complete disguise. It's quiet, as its surface appearance implies it should be. Its steering is light, quick and perfect. Its stability, balance and bite during fast cornering are awesome and seem to be totally incompatible with anything wearing a sedan body. The low-pivot, single-joint swing axle is the remedy for any past vices of this go-anywhere suspension system. And Mercedes brakes always have been of the very finest. A fast ride in a 220 is a revelation and comfort, security and ease of operation are so complete that one is tempted to drive from coast to coast, just for the sense of freedom and relaxation that the car inspires.

These cars were not designed for parade use, for the wearing of top hats or crowns, not for anything other than personal transport at its comfortable, convenient, efficient best. They are fabulous performers, and their prices start at $4400 p.o.e.

All the luxury stops are pulled out for the 220-S coupe, base-priced at $7757. Again, external appearance is only mildly impressive but the interior finish of the four-passenger machine is stupendous; the woodwork and leather are works of art. To enter this vehicle is to enter a small realm of tremendous quality and good taste.

At this level of quality the 220 merges with the 300, normally equipped with automatic transmission but optionally available with full-synchro, four-speed box. The greater displacement is matched by greater horsepower and performance and greater (but still cool) interior appointments and finish. The 300 Automatic sells in the $9000 range and is everything that one could desire in an all-purpose road machine, whether the purpose be motoring to the opera, rushing across a continent or bulldozing new cattle trails on the ancestral ranch. The car fits this crazy spectrum with placid ease. Perhaps no other car can do the same. /MT

Recent restyling of Mercedes-Benz 220 gives the sedan a highly international look. Squared-off lines at rear help to provide immense luggage space for a European car.

Mercedes-Benz pioneered full-independent suspension in the early 1930's, now brought to height of refinement with low single pivot pendulum rear axle. Handling is superb.

Imported Cars For 1961

THE MEDIUM-PRICED IMPORTS

AUSTIN A-55, four-door sedan, $2198, Great Britain

Unchanged for 1961, the A-55 is one of Britain's several answers to a solid, medium-performance, compact-size family sedan. It is well engineered, carefully put together, easy to drive — but not tremendously exciting.

The 90.8-cubic-inch engine is one of the British Motor Corporation's B-type units, which means that many parts are interchangeable with other BMC makes. Conventional in design, its four cylinders push out 55 hp at 4350 rpm and will do it on regular gas. Fuel economy should range from 20 upwards to about 26 mpg, depending on whether or not the 80-mph top speed is regularly used or a more sensible 65-mph cruising is maintained.

There is space for five passengers on chair-high seats, although the rear seat backrest is so shaped that two will fit best there. Controls and instruments are sensibly grouped, visibility is good, and the four-speed shift lever is on the floor where it works smoothly. (A column shift is optional this year.) Ride can be called a bit on the firm side for a family sedan, but the overall handling characteristics are delightful.

BMC has designed this car with their usual skill; from the unit body to a spare tire that is lowered from the bottom of the trunk, the car reflects quality and is built to last. Service and parts are available in equally large measures from a lengthy list of dealers.

General specifications: Wheelbase, 99.3; front tread, 48.9; rear tread, 49.9; overall length, 175.4; width, 63.5; height, 59.8.

Other series: No others available.

AUSTIN A-99, four-door sedan, $3095, Great Britain

Although rarely seen in this country, this largest member of the Austin family is imported and available. Spacious and plushly finished, its size, price and performance place it almost in the Detroit idiom.

The largest of the group deserves and gets the company's biggest engine — the 177.7-cubic-inch Six. In A-99 form it develops 112 hp at 4750, but sports car fans will recognize it as the basic mill which serves the Austin-Healey 3000, slightly hopped up in sports tune. Regardless, the A-99 is considered a high-performance sedan and it does have a top speed close to 100 mph. Stopping chores are handled by a combination of discs and drums, front and rear. Normal transmission is a manual three-speed with overdrive on all gears — in effect, six speeds which can greatly reduce shifting. Overdrive top gear ratio is 2.74 to 1, good for highway economy. A Borg-Warner automatic box is optional.

Nice as this car is, the demand has not been overwhelming in the U.S., undoubtedly because its price makes it competitive with domestic makes. But a large group of BMC dealers have it, or can order it.

General specifications: Wheelbase, 108 inches; front tread, 54; rear tread, 53.2; overall length, 187.5; width, 68.5; height, 60.5.

Other series: No others available.

BORGWARD ISABELLA, two-door sedan, $2295, Germany

Although there is no change in the Isabella and Isabella TS (Touring Sports) models for 1961, there is a brand-new addition to the line — a larger, sleeker four-door with a six-cylinder engine instead of the Isabella's four. No delivery information

was available for the Six at presstime.

The Isabella series offers a pair of 91.1-inch engines; the standard model produces 66 hp at 4800 revs and the TS is upped to 85 at 5400. Normal and TS bodies are identical, but within the TS series is a sports-type coupe designed as a high-performance, luxury tourer. All models, including the Six, feature full independent suspension with coil springs all around and swing axles on the rear, and four-speed, all-synchro transmissions.

Borgward's Four is unusually smooth and capable of really high-speed touring without strain. Top speed of the TS is over 90 mph, while fuel economy is excellent. Seating is most comfortable and ride compares favorably with much larger cars. Handling is absolutely great — a combination of suspension, driving position, well-placed controls and smoothly accurate steering are responsible. There is plenty of space for five plus a huge trunk. The cars are beautifully finished and offer such extras as reclining seats and sunroof.

The TS coupe can best be described as elegant. Its back seat is suitable for children or packages but the individual front buckets offer a non-fatiguing position (with reclining backs) that can be sustained for hours in comfort.

As a slightly larger car both in size and power, the new Six (136.6 cubic inches) develops 100 horses at 5100 rpm. Rated top speed is 100 mph. Optional is an automatic transmission, the Hansamatic, one of the few full automatics which allow the driver complete over-riding control if desired. A further option is an air suspension system, the first to be installed on a German car. It is said to greatly improve the ride and handling qualities. Wheelbase of the Six is about two inches greater and it is a foot longer overall than the Isabella.

There are over 500 Borgward dealers in the U.S., which means that owners are never far from authorized service.

General specifications: Wheelbase, 102.5; front tread, 52.6; rear tread, 53.6; overall length, 173; width, 67.2; height, 57.7.

Other versions: Isabella two-door station wagon, $2495; TS two-door sedan, $2645; TS coupe, $3550; four-door Six, $N.A.

CITROEN ID-LUXE, four-door sedan, $2345, France

The Citroen ID and DS cars can truly be called unique. In styling alone they have been the subject of much discussion, but it is their highly individual air-oil suspension that sets them apart — and provides one of the most amazingly comfortable rides on the road.

There are three series, two IDs and the DS-19, and here is the difference: The ID-Luxe is a "value leader" with non-reclining seats, no interior armrests, a fiberglass roof and plain hubcaps; the ID-19 has the omitted extras and a steel top. Both are powered with the 116.6-inch four-cylinder engine, 75 hp at 4500 revs. The DS-19 looks the same, but its engine (same size) makes 80 hp because of a dual-throat carb. More important, it has an automatic clutch, power-operated synchro gearbox, power brakes and power steering. What makes it unusual is that all of these power accessories are controlled by hydraulic pressure from a central reservoir.

On all three models the all-independent suspension is self-leveling, soaking up bumps with uncanny ease. It is even possible to vary the road clearance between 6.5 and 13.5 inches by changing pressure in the suspension units. Road-holding and cornering ability are on a high level, partly due to Citroen's front-wheel drive. There are more unusual features. The DS, for example, has a small button where the brake should be; it takes some getting used to. All models have the shift lever jutting out of the dash, deeply soft seats and terrific visibility. Brakes are inboard disc at front, drums at the rear. Top speed is about 90 mph; fuel economy is in the 20s. There is really nothing else quite the same as the Citroen at any price.

A limited series, ultra-deluxe DS-19 convertible with a custom body by Chapron is also available this year.

General specifications: Wheelbase, 123 inches; front tread, 59; rear tread, 51.2; overall length, 189; width, 70.5; height, 58.

Other series available: ID-19, $2695; DS-19, $3245; four-door station wagon (eight passenger), $ NA; two-door convertible, approximately $5600.

FIAT 2100, four-door sedan, $2798, Italy

At the top of the comprehensive Fiat line is the handsome and richly finished 2100, comparable in size and performance to many U.S. compacts but considerably more luxurious in its numerous interior features and attention to detail. This car is known as the 1800 in Europe because the engine displacement is slightly less.

As sold in the U.S., the six-cylinder engine displaces 125.3 cubic inches, developing 95 hp at 5000 rpm. Rated top speed is 93 mph, while comfortable cruising without excessive wind or engine noise is available up to about 80 mph. Overall fuel consumption averages out at about 20 mpg.

Suspension is unlike anything else in the Fiat line. In the front are the usual wishbones, tubular shocks and stabilizer bar plus the unusual (for Fiat), adjustable torsion bars. At the rear, the rigid axle is suspended by a combination of coil and leaf springs, tube shocks and a stabilizer bar.

Interior details include chair-high seating, reclining seat backs and rear window defroster. The column-mounted shift lever controls four all-synchro gears. Ride is extremely pleasant — not overly soft and mushy, yet well insulated from road shocks. Handling is likewise good; the 2100 is stable through the entire speed range. Even though there is no power steering, it is light enough for easy maneuvering into close parking spaces.

As its size indicates, the 2100 is a true five-passenger automobile that will carry six adults somewhat less comfortably. There is a roomy trunk with enough area available for a family's vacation luggage.

General specifications: Wheelbase, 104.3 inches; front tread, 52.8; rear tread, 51.4; overall length, 175.8; width, 63.8; height, 57.9.

Other versions: Four-door station wagon, $3058.

HUMBER SUPER SNIPE, four-door sedan, $3995, Great Britain

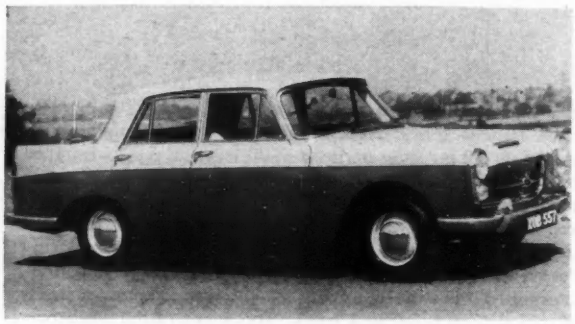
An extensive facelift without major body changes, plus new mechanical details and engine features aimed at longer life and smoother running, sum up the Super Snipe's '61 character. Traditionally the finest car built by the Rootes Group, it is slightly smaller than the typical Detroit sedan (but larger than a compact) and detailed in rich leather and walnut in a way that no domestic car is.

The dual headlights, a familiar sight in this country, are new on an English production car, while the wrap-around grille is new on this year's Super Snipe. Also the front overhang has been extended to accommodate an optional air conditioning system. Inside, polished walnut veneer on dash, sills and rear-seat picnic tables blends warmly with the leather-covered bench seats. Head- and legroom are both ample for six-footers.

Horsepower of the 180.8-cubic-inch Six is unchanged —

continued on page 58

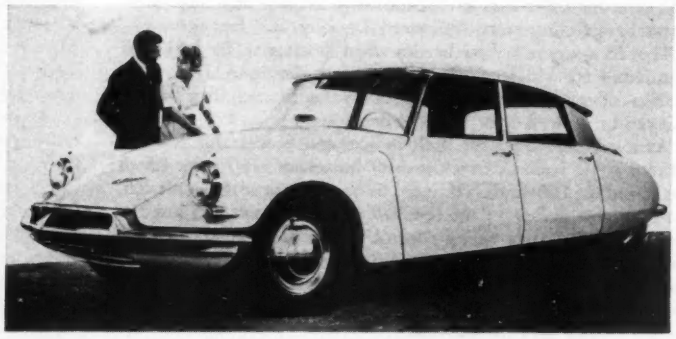
AUSTIN A-99



BORGWARD ISABELLA

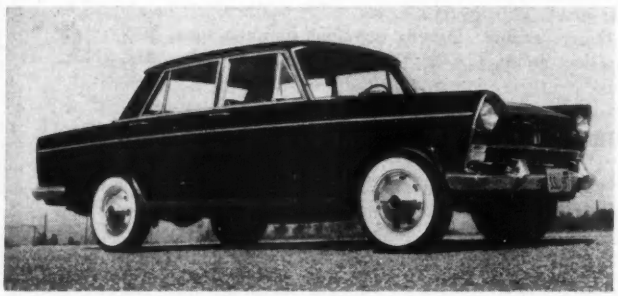
AUSTIN A-55

CITROEN ID-19



LANCIA APPIA

FIAT 21000



HUMBER SUPER SNIPE

LANCIA FLAVIA

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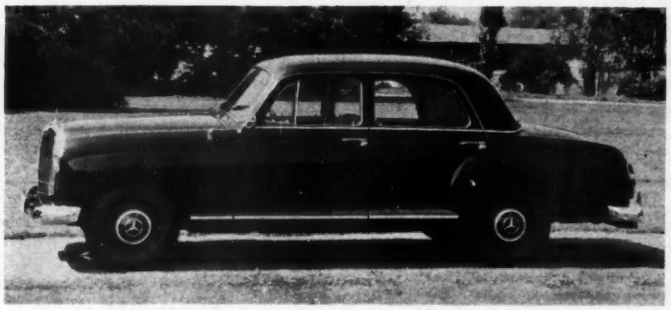


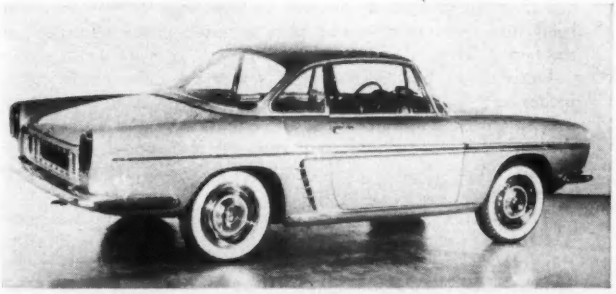
MERCEDES-BENZ 180

MG MAGNETTE

MORRIS OXFORD

PRINCE SKYLINE

PEUGEOT 403



RENAULT CARAVELLE

ROVER 100

129.5 at 4800 rpm. Improvements include new main bearings, new oil and water pumps, better sound insulating and a quieter fan. Power steering may be installed by the dealer. A Borg-Warner automatic transmission is standard on U.S. models as are power brakes — discs on the front and rear drums.

Already good handling and ride qualities have been improved through suspension modifications. Front coils are larger as are the semi-elliptics at the rear.

While this is a relatively low volume seller in this country, there are plenty of Rootes dealers who can deliver Super Snipes to interested customers.

General specifications: Wheelbase, 110 inches; front tread, 56.8; rear tread, 55.5; overall length, 188; width, 69.5; height, 61.

Other versions available: Four-door station wagon, $4575.

LANCIA APPIA, four-door sedan, $2398, Italy

Although it bears a certain resemblance to other cars of similar size, the Appia is loaded with features setting it apart from the field. Pillarless body construction and a tiny V-4 engine are two of the most obvious that give the car a special appeal to enthusiasts.

A pillarless body is just that — the doors meet at the center and when all four are opened there is an unobstructed passage through. Inside those doors are a pair of firm bench seats with space for four adults. Controls are placed to best driver advantage, and the column lever changes a four-speed transmission.

The V-4 we mentioned is compact and efficient. Its 66.5 cubic inches are good for 48 hp at 5200 rpm. This is enough to break the 80-mph mark and record normal gas mileage in the high 20s. Rear suspension utilizes semi-elliptics, but at the front is the famed independent sliding pillar system first used by Lancia almost 40 years ago. It creates a firm ride but it also gives the Appia a reputation for roadability that could hardly be improved. Italian owners, after all, must regularly negotiate some precarious mountain passes.

Although there are dealers in major cities, we don't see many Lancias in this country, mainly because production is low — not because the car isn't worth the price. It is.

General specifications: Wheelbase, 98.7; front tread, 46.4; rear tread, 46.5; overall length, 158.2; width, 58.2; height, 56.9.

Other models: See sports car section.

LANCIA FLAVIA, four-door sedan, $N.A., Italy

One of the very few really new cars of any type to come out of Europe this year, the Flavia should be available, or at least on display for covetous looks, by the time this reaches print. It has been designed to fill Lancia's gap between the very small Appia and the luxury Flaminia, and it appears to fill the bill. The car is especially significant because Lancia has broken with its traditional V-type engine and built a flat four; to cap it the car has front-wheel drive.

The water-cooled mill develops a respectable 78 hp at 5200 rpm from 91.6 cubic inches. Somewhat unusual in design, it uses pushrods with one camshaft on each side of the longitudinally split crankcase. Gearbox is all-synchro, four-speed, with shift mounted on the steering column. All-independent torsion-bar suspension abandons Lancia's old sliding pillar system, replacing it with double A-arms at front.

Although this is a small-engined sedan, it is much roomier than could be expected. There is seating for five, good headroom and a big trunk. The interior finish is in the Lancia tradition — tasteful and carefully executed. Ride is said to impart a feeling of security and high comfort, regardless of road condition.

With a rated top speed of 93 mph, which early reports say is attainable, and quite reasonable fuel consumption, the Flavia should appeal to that segment of the market whose buyers want individuality and quality. Price, not available at this writing, is expected to be about $3800.

General specifications: Wheelbase, 104.3 inches; front tread, 51.2; rear tread, 50.4; overall length, 180.2; width, 63.2; height, 59.1.

Other versions: Only one available.

MERCEDES-BENZ 180, four-door sedan, $3250, Germany

Although there is nothing new about the 180 this year, it remains a prestige car in its field. Everything about it smacks of M-B sky-high quality, and life expectancy is very high, a factor which has made it most adaptable to our conditions.

The unitized frame and floor, which is welded to the body, is extremely rigid. Attached to it through a sub-frame are engine, transmission, front suspension and steering — all of which can be wheeled out for repair. Rear suspension is independent through a highly refined low-pivot swing axle carried on coil springs. Handling and ride are superb, the stability on curves and rough roads being excellent.

Plenty of space for five (deeply contoured bucket seats in front) and an 18-cubic-foot trunk give the 180 a cross-country practicality and its easy maneuverability makes city traffic a pleasure.

The only difference between the 180 and 190 sedans is in the engine. Both displace 115.7 inches. With four cylinders and an overhead cam, they are identical except that the 180 delivers 78 hp at 4500 rpm with 7-to-1 compression and the 190 gives 90 horses at 5000 with 8.5-to-1. Performance varies slightly. The factory rates top speed of the 190 at 90 mph and the 180 at 84. Both have all-synchro four-speed gearboxes. Fuel economy is quite close and will average about 20 mpg. Also offered in the 190 series is a four-cylinder diesel — less performance but outstanding economy.

As a subsidiary of Studebaker-Packard in this country, Mercedes-Benz Sales, Inc. has established a dealer organization where the customer is all-important.

General specifications: Wheelbase, 104.3 inches; front tread, 56.3; rear tread, 58.1; overall length, 177.1; width, 68.5; height, 61.4.

Other versions: 190 four-door sedan, $3441; 190 Diesel, $3718; 190 four-door station wagon, $5196.

MG MAGNETTE, four-door sedan, $2695, Great Britain

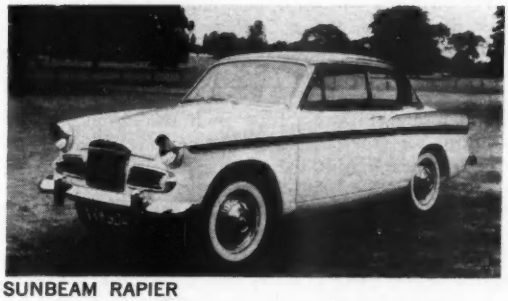
To enthusiasts, the Magnette name conjures up visions of brutal racing machines, pre-war vintage. The recent crop has been infinitely more sedate; also, infinitely more suitable for the family trade.

Deriving its power from BMC's B-type engine (90.8 cubic inches and 66.5 hp at 5000 revs) the Magnette is considered a brisk performer for its size. The engine is almost identical to the early MG-A 1500. It will turn 90 mph under ideal conditions, cruise happily and quietly in the 60s, and record gas mileage from 20 to 26 mpg.

This is essentially a family sedan suitable for five passengers. Yet there are enough sporting features to make it desirable for the enthusiast who cannot maintain a sports car. In sports car fashion, front seats are individual and provide good support, while gear changing (four speeds) is done from the floor. The car is stable and easy to handle at high speeds — hot enough

ROVER THREE-LITER

SINGER GAZELLE



SUNBEAM RAPIER

VW KARMANN GHIA

VOLVO 122-S

for fun, docile enough for traffic. Chassis, incidentally, is identical to the Austin A-55 and Morris Oxford. The body shell is also the same, differing in trim, grille and a better interior for the Magnette.

While the changes for 1961 are so minor as to be inconsequential, the Magnette remains a good buy in its class. Its straightforward approach, sturdy character and the ready availability of excellent service are hard to beat.

General specifications: Wheelbase, 99.3; front tread, 48.9; rear tread, 49.9; overall length, 178.1; width, 63.5; height, 59.7.

Other series: No others available.

MORRIS OXFORD, four-door sedan, $2259, Great Britain

Virtually everything that can be said about the Oxford applies to the Austin A-55, for they are identical in all essential areas — engine, transmission, suspension and body shell. The variation comes in body trim and interiors. This system is comparable to the way in which the Buick Special and Olds F-85 are produced, although they differ more radically than does this British pair.

As with the A-55, there are no significant changes for 1961. Developments within the model year to the entire 1½-liter BMC engine line include a modified combustion chamber to prevent pre-ignition, a new camshaft to reduce tappet noise and a new distributor advance mechanism. For the Oxford and A-55, the optional column shift has been modified for smoother operation and less rattle.

Although the Oxford is about 30 pounds heavier than the A-55, performance should be the same; body shape, gear ratios and power being identical. A trunk with 19 cubic feet of space gives the Farina-designed body the necessary stowage for family travel. Oxfords are available from BMC dealers.

General specifications: Wheelbase, 99.3; front tread, 48.9; rear tread, 49.9; overall length, 175.4; width, 63.5; height, 59.8.

Other series: No others available.

PEUGEOT 403, four-door sunroof sedan, $2250, France

One of the earliest production cars to be styled by the famed Italian, Farina, the Peugeot is an unusual combination of good things that meet the needs of U.S. motorists.

A relatively small engine (89.5 cubic inches) has its 65 horses harnessed to a spacious five-passenger body. In spite of the generous body dimensions, really respectable performance is on tap. Adding icing to the cake are a group of extras tossed in for the regular price, including the sunroof, heater, reclining seats and a choice of whitewall or Michelin-X tires.

Transmission and drive train rate a mention. The gearbox is all-synchro with third the direct drive and fourth an overdrive. In order to lower the driveshaft the rear axle employs underslung worm gearing — unusual but effective.

Handling qualities are good. Rack-and-pinion steering, independent front suspension with a transverse leaf spring, and coil springs at the rear axle are responsible for the Peugeot's road behavior. Economy will average out in the mid- to high 20s per gallon — an important factor because this car is aimed directly at the family market. Reliability is said to be excellent and there are over 600 U.S. dealers who aim to keep up the firm's reputation.

General specifications: Wheelbase, 105 inches; front tread, 52.7; rear tread, 52; overall length, 176; width, 65.7; height, 59.5.

Other versions: Four-door station wagon, $2490.

continued

The Medium-Priced Imports

PEUGEOT 404, four-door sunroof sedan, $2575, France

Brand new for '61, the 404 is an exciting addition to Peugeot's line of family-car imports. It will be sold in addition to the 403, which remains as a slightly less expensive offering.

Smartly styled, the 404 is fractionally smaller overall than the 403, but it actually has a bit more inside space. Its interior is comfortably appointed and in keeping with Peugeot tradition, there is a long list of expensive extras included as standard. They include the steel sunroof, fully reclining seats, electric clock, heater, choice of Michelin-X or whitewall tires and an item quite rare on imports — an automatic engine fan which freewheels when not needed for cooling.

With an engine displacing 98.7 cubic inches and developing 72 hp at 5400 rpm, all aspects of performance are greater than the 403. Rated top speed is 88-90 mph, while the factory states that fuel economy ranges from 27 to 35 mpg. The column-controlled all-synchro gearbox is direct drive in fourth gear, unlike the 403 which has an overdrive fourth.

With a unit body (a Peugeot standard since 1948), front suspension is independent through A-arms, tubular shocks and coil springs. The live rear axle is located by a torque tube and a Panhard rod and suspended by coil springs and double-acting tubular shocks.

Because it is so new, little is known of the car's handling capabilities, but indications are they will surpass the fine qualities of the 403.

General specifications: Wheelbase, 104.5 inches; front tread, 52.7; rear tread, 50.5; overall length, 174; width, 64; height, 57.

Other versions: Only one manufactured.

PRINCE SKYLINE, 4-door sedan, $2295 (West Coast p.o.e.), Japan

Passenger cars from Japan are still something of a rarity in most parts of the country, but they are being imported in increasing quantity. The Prince follows the theme that seems to be popular in the Orient — well-appointed interior, a modest-size engine for a measure of economy, and sturdy construction designed to take a beating.

The Prince uses a heavy backbone-type frame with outrigger beams and a ribbed tray — strong in the extreme. Curb weight is 2866 pounds. A seldom seen feature on a passenger car is the de Dion rear axle, which gives a form of semi-independent rear suspension for increased stability and riding comfort. Six passengers can be carried and there is plenty of luggage space.

A square-four engine (equal bore and stroke) displaces 113.6 cubic inches and turns out 90 hp at 4800 revs. Maximum rated speed is 84 mph, with excellent economy claimed.

Distribution of the Prince, limited to the West Coast, has been concentrated in the San Francisco area.

General specifications: Wheelbase, 99.8 inches; front tread, 52.8; rear tread, 54.3; overall length, 171.7; width, 65.9; height, 60.4.

Other versions: Only one available.

RENAULT CARAVELLE, coupe, $2295, France

As a sports-type version of the Dauphine, the Caravelle offers some interesting and unusual plus features over the small sedan. The sharp looking bodywork is obvious; additionally there is more power, a four-speed transmission, better handling and considerably more performance, all of which have endeared the car to a growing number of drivers.

The rear-mounted four-cylinder engine (51.5 cubic inches) gets 40 hp (eight more than the sedan) at 5000 rpm from a special camshaft, bigger valves and ports, larger carb venturi, and higher compression. It retains its docile street character and readily delivers above 30 mpg. Top speed is in excess of 75 mph, with acceleration perfectly adequate for any traffic.

Handling qualities are excellent; steering is light and at high speed the Caravelle gets around corners with alacrity, much as a sports car with a trace of oversteer. Riding comfort is very good, even on rough surfaces where the Aerostable suspension (same as the Dauphine) soaks up much of the unpleasantness.

Mounted on the Dauphine platform chassis, the Caravelle's interior holds two in bucket-type seats plus luggage or kiddies in the rear. The coupe, which has a fixed top, is supplemented by a removable hardtop model.

General specifications: Wheelbase, 89.4 inches; front tread, 49.2; rear tread, 48; overall length, 164; width, 60; height, 55.

Other series available: Convertible, $2395; combination removable hardtop plus soft top, $2545.

ROVER 100, four-door sedan, $3695, Great Britain

Highly respected for the sound engineering and excellent finish of its cars, the Rover Company continues the 100 for '61 with only mechanical detail changes, many of which were quietly incorporated into the car during the 1960 model year. The only visible change is a "swan neck" shift lever which permits comfortable three-abreast front seating in spite of a floor control for the four-speed transmission. Overdrive, incidentally, is standard. Also, the steering ratio has been increased to lighten the steering.

Interiors are highlighted by deep-pile carpeting, rich leather and polished walnut in the best English coachbuilding tradition. Along with the rich comfort is space for six and a ride that is among the best anywhere. A dry weight of 3200 pounds prohibits outstanding acceleration and makes for only fair economy.

Smoothly silent, the six-cylinder engine (160.3 cubic inches) develops 104 hp at 4750 revs. Its design entails an inclined aluminum head with overhead intake and side-located exhaust valves. Further, it is one of the very few production engines using roller-type cam followers. Despite the conservative nature of Rover design, the disc brakes at the front add a sharply modern note.

Because not many are manufactured, Rover distribution is limited in this country. However, those owners on the road are fiercely loyal to their chosen car.

General specifications: Wheelbase, 111 inches; front tread, 52.5; rear tread, 51.5; overall length, 178.2; width, 65.4; height, 63.7.

Other series: No others available.

ROVER THREE-LITER, four-door sedan, $4620, Great Britain

As the ultimate in the Rover line, the Three-Liter is not an inexpensive car. It is aimed at the connoisseur who appreciates fine quality and demands something more than basic transportation from his automobile. And the Rover Three-Liter gives it. Body styling continues without change for '61, but a number of refinements to interior trim and mechanical details have been introduced.

The plush and roomy interior now has pleated instead of plain leather upholstery. Highly polished wood has been added for the sills and window framing and continues on the dash, while interior lighting, heating and venting have been improved.

Mechanically, the Three-Liter's six-cylinder engine is quite similar to the smaller 100 — seven main bearings, top intake-

side exhaust valves — but it displaces 183 cubic inches and develops 115 hp at 4500 rpm. This is good for 100 mph (factory rating) and fuel economy that averages from 16 to 20 mpg. It's a quiet car, insulated from road noise by the most advanced methods. Ride and handling have been praised by all who have driven it, including some very critical experts. Manual steering is easy and precise, and power steering is optional.

There is a choice of transmissions — four-speed manual with overdrive or a Borg-Warner automatic — to suit driver temperament. Rounding out mechanical features are disc brakes at front (rear drums) and independent front suspension via torsion bars. The solid rear axle is on semi-elliptic springs.

General specifications: Wheelbase, 110.5 inches; front tread, 55; rear tread, 56; overall length, 186.5; width, 70; height, 60.2.

Other series: No others available.

SINGER GAZELLE, four-door sedan, $2095, Great Britain

The Gazelle can be termed the halfway point between Rootes' Hillman Minx and Sunbeam Rapier. More conservative in power and price than the Rapier, the Gazelle is upgraded from the Hillman in both those areas.

From a four-cylinder engine of the same displacement as the Minx and Rapier, 91.2 cubic inches, the Gazelle turns out 64 hp at 4600 revs with 8.5-to-1 compression. Carburetion is via a single Solex downdraft. Standard transmission is a four-speed with floor control (column shift optional). However, the fully automatic Easidrive is available. Unlike fluid-coupled torque converters, Easidrive contains two magnetic powder clutches. When current is applied the powder arranges itself along lines of force and locks up solid to transmit power. Shifting within the three-speed transmission is fully automatic. The system works so well that there is virtually no power loss and no consequent gas mileage drop through slippage.

Featuring unit construction for rattle-free life, the body is designed for family use; rear doors facilitate entry and exit, while the bench front seat makes three-abreast seating feasible. Top speed is about 85 mph with each gallon of regular fuel good for about 25 miles. As one of Rootes products, there are plenty of dealers and parts available for the car.

General specifications: Wheelbase, 96 inches; front tread, 49; rear tread, 48.5; overall length, 163.5; width, 60.7; height, 59.5.

Other series available: Two-door convertible, $2349; four-door station wagon, $2425. (Add $199.50 for Easidrive.)

SUNBEAM RAPIER, two-door hardtop, $2499, Great Britain

Except for some mechanical details, including the adoption of a hypoid rear axle, the popular Rapier is unchanged for 1961. It is a high-grade touring car, but success in international rallies and in sedan races adds a definite sporting flavor.

With 78 hp at 5400 revs, the solid little four-banger (91.2 cubic inches) will haul the Rapier along to slightly over 90 mph. Dual Zenith carburetors, 9.2-to-1 compression and an aluminum alloy head are featured on the engine. An optional overdrive makes fast cruising and low fuel consumption compatible, while disc brakes on the front wheels (drums on the rear) provide stopping power that is always up to par.

On the inside the rear seat is comfortable for two, but as with most sedans of this type it is possible to carry three. From the driver's standpoint all controls are neatly arranged. A floor shift for the four-speed transmission is beautifully positioned and there is a large tachometer to warn the heavy-footed of over-revving. Of unitized construction, the body is suspended independently at the front via coil springs; there are semi-elliptics and a rigid axle at the rear. An indication of the Rapier's roadability lies in the fact that the only suspension modification considered necessary for racing is a stiffer setting on the tubular shocks.

Built by the Rootes Group and serviced by a very large chain of dealers in this country, the Rapier offers exciting motoring.

General specifications: Wheelbase, 96 inches; front tread, 49.7; rear tread, 48.5; overall length, 162.5; width, 61; height, 58.5.

Other series available: Convertible, $2649.

VOLKSWAGEN KARMANN GHIA, coupe, $2430, Germany

Although the smartly styled Ghia is VW under the skin, completely different coachwork gives it a new function and places it in a different category from the sedan. There is, in fact, a slight mechanical variation; the platform chassis is slightly wider than it is in the sedan.

Because of better body streamlining, the 40-hp, air-cooled, flat Four pushes the car about three mph faster than the sedan at the top — conservatively, 75 mph. Handling, braking and riding are the same as the sedan, that is, good. The Ghia's appeal, however, is different. Almost seven inches lower and three inches longer, it is a sports-type machine (but not a sports car) and seats only two in semi-bucket seats. There is a padded platform seat in the rear that will take a child or two but it is better suited to luggage. The backrest folds flat and opens up a large-capacity storage area, big enough for a couple's vacation luggage. Under the hood is a free area comparable to the sedan. Finish throughout is of uniformly fine quality — as close to flawless as one can come for the money.

Of particular interest is the convertible. The outside of the top is padded so that there is virtually no indication of bows, while similar padding on the inside gives the illusion of a hardtop. Further, this treatment helps reduce noise level.

General specifications: Wheelbase, 94.5 inches; front tread, 51.4; rear, 50.7; overall length, 163; width, 64.2; height, 52.2.

Other series: Convertible, $2695.

VOLVO 122-S, four-door sedan, $2495, Sweden

Sweden produces a limited selection of cars, but those few are among the best of their type made. The 122-S is such a car in its class — fun to drive, handsomely finished, relatively economical to operate and rugged throughout.

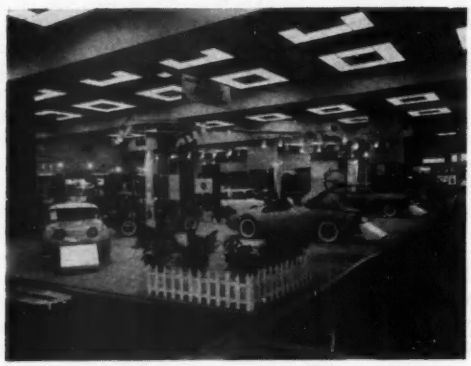
Built to withstand the severe native climate, the unitized body is rustproofed and undersealed at the factory. Seating accommodates four or five on well-shaped, rather firm cushions. The safety-conscious Swedes have installed a padded dash with no obstructions, padded visors, a steering column that collapses under pressure and attachments that take a special across-the-chest seat belt. On the probability that many owners will be on secondary roads, the unloaded ground clearance is 7.9 inches; with four passengers it is a tall 6.7 inches.

The same free-revving four-cylinder engine as in the PV-544 (97 cubic inches, 85 hp) pushes the 122 to a top speed of just over 90 mph. At 2400 pounds curb weight, the 122 is slightly heavier than the less expensive PV and consequently a bit slower. Handling is nevertheless extremely good, whether in city traffic conditions or fast touring. For its size the 122 delivers remarkable gasoline mileage; reports of 25 mpg are not at all uncommon.

General specifications: Wheelbase, 102.4 inches; front and rear tread, 51.8; overall length, 175.2; width, 63.8; height, 59.3.

Other series: No others available.

Imported Cars For 1961



SPORTS CARS

A wide range of cars that mean excitement for any driver

A.C. Ace, roadster, $4799 (West Coast p.o.e.), Great Britain

Here is a medium-displacement, high-performance sports car that has changed little, if any, since its introduction late in 1953. Its styling remains smart and modern, chassis design is still considered advanced, while both the Ace engine and the popular Bristol option give exciting performance.

Parallel, three-inch-diameter steel tubes make up the chassis frame, providing stiffness with light weight. Suspension is all independent via transverse leaf springs at top and A-arms below, an unusual but effective method. Stopping ability borders on the fantastic; front brakes are Girling disc and rear are 11-inch Al-fin drums. They simply never fade. The four-speed gearbox, its stubby control lever nicely positioned on the tunnel, is synchro on the top three gears.

Standard engine is the two-liter, six-cylinder, overhead cam Ace (121.5 cubic inches, 103 hp at 5000 rpm). Reliable and sturdy, it can move the car past 100 mph but the optional Bristol engine has actually proven itself more popular with owners. The Bristol is almost the same size (120.2 cubic inches), but it is a pushrod Six of considerably older design. Despite these supposed shortcomings it delivers 125 hp at 5750 rpm and is considered a must for competition.

A lengthy treatise could be written on the joys of the A.C.'s handling. Built for safe high-speed performance without regard for road conditions, the car has no road-holding vices. Top speed with the Bristol engine is about 125 mph, with acceleration to 60 mph just under 10 seconds.

Although the car is designed for competition, the aluminum roadster body is finished with painstaking detail. The two form-fitting bucket seats are upholstered in real leather; there is a snug removable soft top and fine quality floor rugs.

For those who prefer a closed coupe, A.C. offers the Aceca. Mechanically identical, its handsome fastback-style aluminum body has more creature comforts including roll-up windows and a generous luggage area behind the seats. Finish and appointments are in keeping with a virtually handmade car in this price class.

Brand-new with A.C. is the Greyhound. It has recently gone into production, and first shipments are expected in the U.S. by early summer. It strongly resembles the Aceca but is even more luxurious and has been stretched out to provide a usable rear seat. There will be a choice of either the two- or 2.2-liter Bristol engine offered. Price is expected to be somewhat over $8000. Production will be limited, but so it is with all A.C.'s.

General specifications: Wheelbase, 90 inches; front and rear tread, 50; overall length, 151.5; width, 59.5; height, 49.

Other versions: A.C. Bristol roadster, $5699; Aceca coupe, $5699; Aceca Birstol coupe, $6599; Greyhound coupe, $N.A.

ABARTH-FIAT 750, Sestriere coupe, $2895, Italy

Sorting out the various engines and body styles available from Abarth is confusing but fascinating; each seems more exciting than the last. The simplest way seems to be to list the various body styles and engines and say that most engines can be had in most of the bodies. The few exceptions and possible combinations of engines and bodies would fill several pages.

There are three small coupes — the Sestriere, Record Monza and the Scorpione. All have similar but not identical shapes, but there are subtle differences. For example, there is not enough engine compartment space in the Sestriere to take any of the twin-overhead-cam engines. In addition, there is a small Riviera roadster, a slightly larger Allemano convertible for the 1600 series, and a considerably bigger coupe and convertible in the 2200 series. Except for the 2200, which is front engined and conventionally suspended, all the cars have rear engines, rear swing axles and front suspensions with upper wishbones and a transverse leaf spring.

The number designations refer to approximate cubic centimeter displacement of the various engines which are divided into ohv-pushrod and overhead-cam powerplants. All are in line. Among the pushrod versions there are two 750s, 40 hp at 6200 rpm and 52 hp at 6200. A third, the Mille Miglia 750, develops 59 hp at 6400. The 800 has 52 hp at 6200; the 850 develops 59 hp at 6200; and the 850 Super, 64 hp at 6400. All are derived from the Fiat 600 engine.

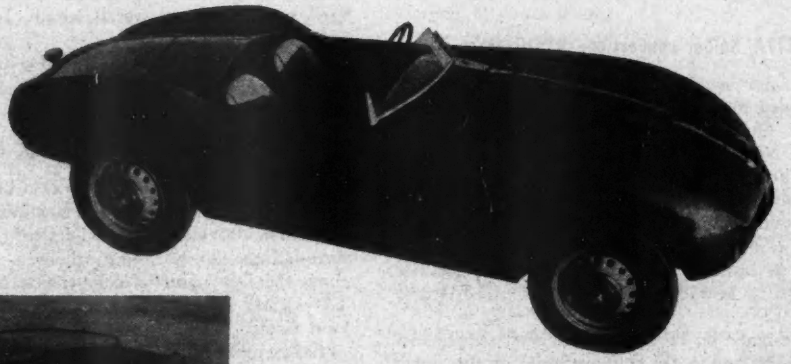
The 2200, a pushrod Six developed from the Fiat 2100, is hopped up to 150 hp at 5000 rpm. Top speed is 120 mph, and price is expected to be about $6500 when U.S. deliveries begin.

In the twin-overhead-cam department, there is a 750, 74 hp at 6800 rpm; an 850, 79 hp at 6800; a 1000, about 100 hp at 6800; and the 1600 which will develop 125 hp. This latter,

continued on page 64

ASTON MARTIN DB-4

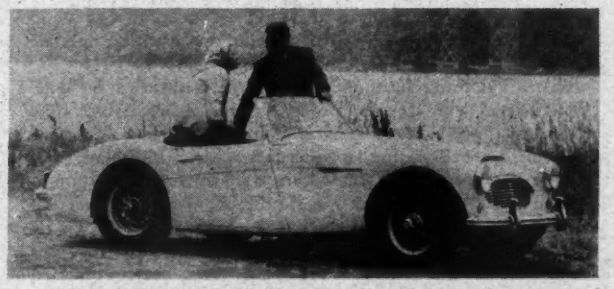
AUSTIN-HEALEY SPRITE



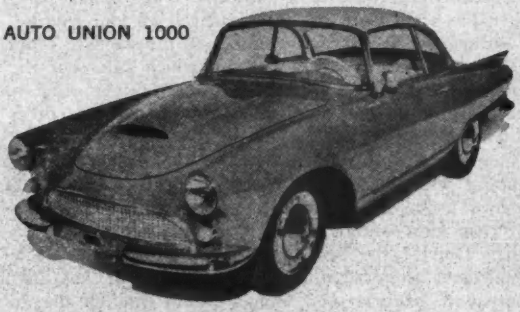
ARNOLT-BRISTOL

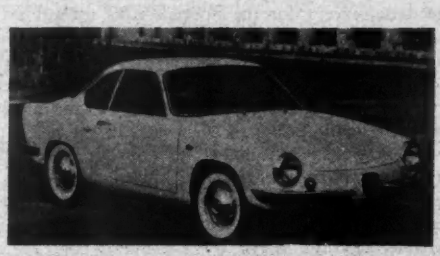
AUSTIN-HEALEY 3000

A. C. ACE



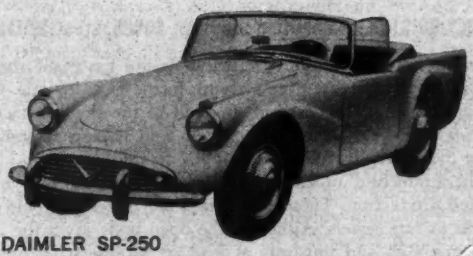
AUTO UNION 1000





ABARTH-FIAT

ALFA ROMEO



DAIMLER SP-250

incidentally, will have a U.S. price of about $5500.

The entire line is noted for handling qualities which make them competitive in class road racing, and a very high fun factor for the enthusiast who wants something a little different on the street.

General specifications (Sestriere): Wheelbase, 78.8 inches; front and rear tread, 45.6; overall length, 136.5; width, 65.4; height, 46.

Other versions (partial listing): 750 coupe (52 hp), $3195; 750 Spyder roadster (52 hp), $3195; 850 coupe, $3195.

ALFA ROMEO GIULIETTA, Spider convertible, $3520, Italy

Few sports cars offer as broad a range as does the Alfa. Whatever the intended purpose, from street to full race, there is something in the Giulietta series to fill the need. And for prestige there is the 2000 series convertible.

The basic four-cylinder, twin-cam engine displaces only 78.65 cubic inches. In the Spider convertible and Sprint coupe it develops 91 hp at 6000 revs; as in a Super Spider convertible or Veloce coupe it is modified to 103 horses at 6000. Going way out, the engine as installed in the wild new Sprint Speciale coupe cranks out 116 hp at 6500 rpm — and it's still driveable on the street.

The engine is designed to be revved; its best performance range is between 3000 and 6500 rpm. In spite of the rather heavy steel body, acceleration is good. The Super Spider, for example, gets to 60 mph in about 11 seconds and has a top speed of over 110 mph. Rated maximum speed of the Speciale is 125 mph.

There is nothing startling about Giulietta suspension: independent front with A-arms, coil springs and stabilizer bar; rigid rear axle with coil springs and radius rods. Yet road-holding and cornering are outstanding, as indicated by the Alfa's many class wins in U.S. road racing. Brakes are large finned drums, powerful and fade-free. The four-speed, all-synchro transmission is a Porsche design; a five-speed gearbox is used in the Speciale.

Roadsters are handsomely finished, with good folding tops, roll-up windows and comfortable bucket seats. The coupes carry a small utility rear seat. Coupes, incidentally, are built on a 94-inch wheelbase, except for the Speciale's 89 inches.

Although the 2000 convertible is very similar to the Giulietta Spider in appearance, it is longer (on a 98-inch wheelbase), has a four-inch-wider tread and is nearly six inches wider overall. The four-cylinder engine, again similar in design, displaces 120.48 cubic inches and develops 115 hp at 5500 rpm.

General specifications: Wheelbase, 86.6 inches; front tread, 50.6; rear tread, 50; overall length, 152; width, 62; height, 52.

Other versions: Super Spider roadster, $3890; Sprint coupe, $3843; Veloce coupe, $4149; Sprint Speciale coupe, $5555; 2000 convertible, $5372.

ARNOLT-BRISTOL, competition roadster, $3995, Great Britain, Italy

An automotive hybrid, the Arnolt-Bristol has made the international rounds before ever arriving in the U.S. for sale. Chassis and engine are shipped from England to the Bertone factory in Italy, where the steel body is put on and the car is completed. Then the finished product is shipped to the U.S.

The brainchild of Chicago's S.H. Arnolt, the A-B has had limited production. Those few extant are prized by their owners almost as rare jewels. Although the open body gives the illusion of being high and ungainly at first, its unique sculptured lines are actually very aerodynamic, as proven by the lack of wind buffeting to passengers at high speed.

Power is from the six-cylinder Bristol engine (121.5 cubic inches), the same as used in the A.C.-Bristol but in a different stage of tune and delivering about 130 hp. Acceleration is excellent, and handling is so good that Arnolt-Bristols are race competitive without suspension modifications. The general feeling imparted is that of a stable, sturdy sports car that could run indefinitely without trouble — and it very nearly will.

There is no top and a very minimum windshield for the competition roadster; the Deluxe version, however, has a folding top, windows and full windshield.

General specifications: Wheelbase, 96.3 inches; front tread, 51.9; rear tread, 54; overall length, 171.3; width, 68; height, 55.8.

Other versions: Bolide, $4295; Deluxe, $4995.

ASTON MARTIN DB-4, coupe, $10,400, Great Britain

With a great sports-race tradition behind it, the Aston combines the near-ultimate in sports motoring with a definite note of luxury provided by hand-crafted interiors. But the plush surroundings do not mean there is anything less masculine about the DB-4 and its competition companion, the DB-4GT. The former is a 140-mph car, and the more powerful GT is even faster.

Basic engine for both cars is a six-cylinder in-line with twin-overhead cams. From 3.7 liters (223.9 cubic inches) the DB-4 develops 263 hp at 5500 rpm. Raising compression from 8.25 to 9-to-1, substituting three Webers for two SU carburetors, and a few internal modifications bring the GT power up to 331 horses at 6000. To handle the extra punch, a limited-slip differential and a twin-plate clutch are standard.

Basis for today's Aston is a platform-type chassis integrated with the steel tube framework for the light alloy body. The DB-4 is assembled in England to Italian specifications. Front suspension is independent through ball-jointed A-arms; the rigid rear axle is positioned by a transverse Watts linkage and trailing radius arms. Coil springs are used at all four wheels.

Although it appears quite similar to the standard coupe, the GT has five inches less wheelbase, which rules out the rear seats. Faired-in headlights, Borrani lightweight wire wheels, and Girling instead of Dunlop disc brakes are other GT variations.

Interiors of both cars are designed for maximum comfort in keeping with high-speed motoring. Aside from the careful interior finish, instruments, wheel and shift lever are placed in what most experts agree is a good relationship to each other. One of the first things noticed by drivers, after the tremendous acceleration, are the close ratios in the all-synchro, four-speed gearbox. And after winding through the gears it takes only moderate pedal pressure to stop the car in record time.

Price alone tends to explain where the Aston ranks with current motor cars. It deserves its place among the world's best.

General specifications: Wheelbase, 98 inches; front tread, 54; rear tread, 53.5; overall length, 176.6; width, 66; height, 52.

Other versions: DB-4GT coupe, $12,500.

AUSTIN-HEALEY 3000, standard roadster, $3051, Great Britain

While the A-H has undergone a couple of changes in powerplant and some body modifications during its few years of life, it has always been characterized by a relatively big engine that mostly loafs along. The 177.6-cubic-inch Six currently installed is no exception. It turns out its 130 hp at a leisurely 4750 rpm, the equivalent of 112 mph, just short of its actual top speed.

Low-end acceleration is creditable, with zero to 60 mph taking about 10 seconds.

Even though the car has had a good deal of racing success, it is a first-rate boulevard transporter and personal fun car that attracts youthful neophytes and jaded businessmen alike. Ride is slightly on the firm side in the best sports car fashion, and the exhaust note is properly noisy. There is a good all-weather top with sliding window curtains, but most Healey owners run with top down in good weather. The individual bucket seats are designed for good support in a neat and practical cockpit. A four-speed transmission is synchronized on the top three gears.

Chassis features individual front suspension and a rigid rear axle suspended by semi-elliptic springs. Braking is excellent, although pedal pressure is a bit high. Front wheels have discs and the rear carry finned drums.

The standard roadster is a sort of stripped version. It is the four-seater (the rear for children or packages) with disc wheels. The deluxe has wire wheels, heater and overdrive as standard equipment. A fiberglass hard top is optional.

General specifications: Wheelbase, 91.8 inches; front tread, 48.8; rear tread, 50; overall length, 157.5; width, 60; height, 49.

Other versions: Deluxe roadster (two or four seater), $3371.

AUSTIN-HEALEY SPRITE, roadster, $1795, Great Britain

If there is a formula for instant success, the diminutive Sprite has found it. Popular from its introduction, this personable two-seater has a huge circle of admirers who appreciate its combination of low price and minimum upkeep, friendly road manners and lively performance.

Powered by BMC's A-type engine, displacing 57.8 cubic inches and suitably modified to produce 48 hp at 5000 rpm, it is not exactly a stormer but it gives the illusion of being one. Top speed is about 80 mph, but Sprites in road-racing trim have bettered that speed. There is a crisp-acting, four-speed transmission, light, positive steering, and handling qualities that are so easy to master that the beginner rapidly fancies himself an expert. A little bonus for Sprite drivers is the fuel consumption — considerably better than 30 mpg under most conditions.

The unitized roadster body exemplifies simplicity. For example, there is considerable storage area in the tail section but there is no trunk lid; the only access is from behind the seats. And raising the hood means lifting virtually all the sheet metal forward of the windshield, but provides perfect entrance to the engine. A snap-on top keeps out the rain (along with side curtains), while for those less hardy there is an optional hard top.

General specifications: Wheelbase, 80 inches; front tread, 45.8; rear tread, 44.8, overall length, 137.3; width, 53; height, 49.8.

Other versions: Only one available.

AUTO UNION 1000, sport coupe, $3924.68, Germany

Although the Auto Union line is described on another page, there is one version that is so unlike any other that it must be handled separately. It isn't a sports car in a strict interpretation, but it's awfully sporting with low, smooth lines that greatly remind one of early Thunderbird styling.

It uses the same three-cylinder, two stroke (59.8 cubic inches) as the rest of the A-U series, except that power has been upped to 62 at 4500 rpm, making it the most potent of any of the firm's production engines. The combination of front-wheel drive and the car's overall lowness allows even better handling than the good characteristics already built into the rest of the line. Better streamlining and a bit less weight (just under 2000 pounds) help stretch the rated top speed to 87 mph, several points faster than any other Auto Union.

This particular model is, quite naturally, finished with a great deal more care than the less expensive versions. The individual seats, for example, have Reutter seat recliners, the same as found on some of the world's most expensive cars. The hard top is fixed, and there is a utility rear seat plus a relatively spacious trunk.

Very few of these have been delivered in the U.S., but Auto Union dealers can get them for interested customers.

General specifications: Wheelbase, 92.5 inches; front tread, 50.8; rear tread, 53.2; overall length, 165; width, 66; height, 52.

Other versions: Only one available.

BERKELEY BANDIT, roadster, $N.A., Great Britain

After a period of several years, during which Berkeleys met with less than enthusiastic reception in the U.S., it appears that the firm's latest offering may be the key to sales here.

The fiberglass body is larger and restyled from previous models and the firm has broken completely with its motorcycle-engine, front-drive format in this case. Power is from the stock Ford Anglia engine (60.8 cubic inches, 39 hp at 5000 rpm), but speed modifications are expected to be available.

Other Anglia components include transmission, front and rear suspension with modifications. Of particular interest is the way in which the Anglia differential has been retained, along with a special swing axle arrangement, giving all-independent suspension. Steering is through a Triumph Herald rack and pinion. Brakes are eight-inch discs on the front and eight-inch drums at the rear.

There is snug seating for two, a small luggage trunk and a padded dash with instruments both recessed into it and placed on a center console. Ride is said to be typically firm, while the handling has been described as very good.

Price is expected to be slightly over $2000, and U.S. deliveries are anticipated by early summer.

General specifications: Wheelbase, 82 inches; front and rear tread, 46; overall length, 145; width, 54; height, 44.

Other versions: Only version expected to be available.

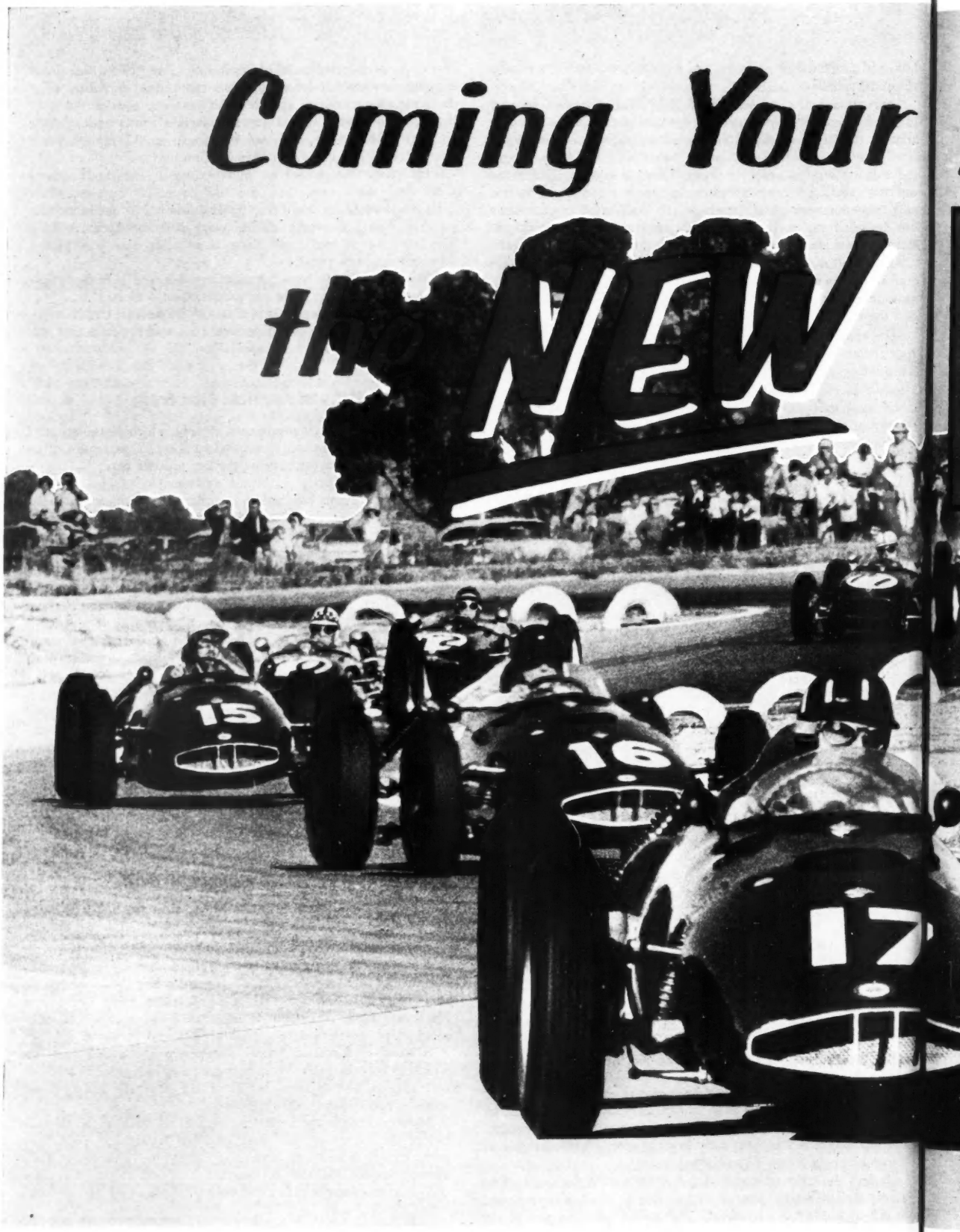
DAIMLER SP-250, convertible, $3702, Great Britain

A relative newcomer to the sports car fold, the SP-250's advanced engineering is wrapped in a body shell that has been described as esthetically uninspired. The description refers to its surface development; its appointments and accommodations are top quality. Of fiberglass, the Daimler has a pair of bucket seats that wrap occupants in a comfortable grip. There is a rear seat, called occasional, roll-up windows and a full complement of instruments on a leather-covered dash.

A sturdy box-section frame insures a properly stiff basis on which to bolt the body. Front suspension is independent through coil springs and A-arms, while at the rear are conventional semi-elliptic springs and a rigid axle.

Most exciting is the Daimler's engine, all the more so because before the company was purchased by Jaguar last year, they were chiefly noted for large and luxurious limousines. They seemed hardly the sort to produce a sports engine but they did — a short-stroke ohv V-8 that produces 140 hp at 5800

continued on page 68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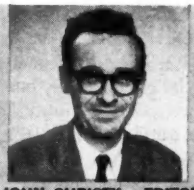

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rpm from 155.5 cubic inches. Its smoothness and free-revving qualities make it a delight to drive, but it is also fast — plenty fast, with a test report of 123.7 mph from the highly regarded British journal, *The Motor.*

Speed isn't the only factor that has enthused the SP-250's drivers. There is outstanding braking from four Girling discs, a smooth acting four-speed transmission, and handling qualities that are sports car in every sense of the word.

General specifications: Wheelbase, 92 inches; front tread, 50; rear tread, 48; overall length, 160.5; width, 60.5; height, 50.3.

Other versions: Hardtop convertible, $4073.

DEUTSCH-BONNET, coupe, $3295 (West Coast p.o.e.), France

Commonly known as the D-B, this handsome, aerodynamic coupe is in select company as a true dual-purpose sports car; that is, it can be driven as daily transportation and raced without modifications successfully on weekends. As for actual racing potential, the D-B's wins (Index of Performance) at the 24 Hours of Le Mans should be sufficient endorsement.

The body is pre-stressed, unitized fiberglass, on a chassis that uses a central steel tube design. There is an inner framework over the cockpit designed for rollover protection, but it is not quite adequate to meet the roll bar specifications required for U.S. racing. By sports car standards the interior is quite luxurious; there are a pair of smartly finished bucket seats plus a small rear seat area. An unusual extra, fitted into the front portion of the top, is a transparent plastic sunroof which can be blocked off by simply zipping an interior cover into place.

Featuring front-wheel drive, the D-B is powered by a flat, air-cooled twin which is derived from the Panhard engine. Displacing 51.9 cubic inches, it develops 65 hp at 5700 rpm. Acceleration is excellent in this displacement class and the rated top speed is 115 mph.

Front wheel suspension is independent, with transverse springs and telescopic shocks. Rear suspension is by torsion bars and shocks.

Handling is excellent in spite of a phenomenon peculiar to front-wheel-drive cars when cornering at extremely high speed. Often the inside rear wheel will lift clear of the ground, rotating idly until the car drops back on all fours. Since the front wheels are pulling the car around, there is no effect on steering characteristics. Of equal importance, the D-B is sufficiently tractable for easy driving in heavy city traffic.

General specifications: Wheelbase, 85 inches; front and rear tread, 49; overall length, 160; height, 50; width, 63.

Other versions: Only version available.

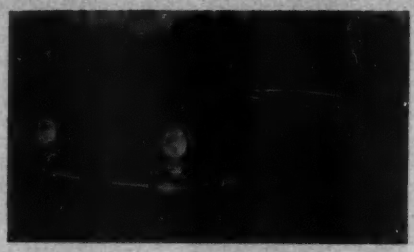
FACELLIA, convertible, $3995, France

One of the few new sports cars to arrive upon this year's scene, the Facellia has all the elements for success among the elegant touring-sports machines currently available. It is smart, beautifully finished, offers good ride and roadability, top performance from a small, modern engine, and owners will be an exclusive group for some time to come.

Although it bears no mechanical relation to its larger counterpart, the luxury Facel Vega, the general styling theme has been followed. Instead of using a Detroit engine, as does the Facel, the Facellia's is new with twin cams, four cylinders and 115 hp at 6400 rpm from 100.4 cubic inches. Designed more for fast touring than race competition, acceleration to 60 mph takes about 13-14 seconds, with a factory-rated top speed of 114 mph.

The interior is elaborate: doors are leather covered; a center console carries shift lever and some controls and there is a full array of instruments on the dash. Seats are leather-upholstered in wide, transverse pleats, unusual in appearance but said to be comfortable. Kneeroom is limited for the full-width rear seat. However, it is good for luggage, supplementing the medium-size trunk. The convertible top provides good visibility

DEUTSCH-BONNET



LANCIA APPIA

FACELLIA

MASERATI 3500 GT

and weather protection (naturally there are roll-up windows), and there is an optional hard top for coupe lovers.

Steering is light, precise and reasonably quick. The general road feel over adverse surfaces should appeal to enthusiasts who are particular about handling qualities. Enhancing the car's sports qualities are Dunlop disc brakes all around and an all-synchro, four-speed transmission.

General specifications: Wheelbase, 96.5 inches; front tread, 51.3; rear tread, 51.2; overall length, 163.5; width, 64; height, 49.5.

Other versions: No others available.

Body is by Farina and features lots of glass for good visibility. Soft leather seats cradle driver and passengers with a minimum of fatigue. For touring there is a large trunk.

On special order one may still buy the ultra-fast, 400-hp, 410 SuperAmerica coupe, about $18,000.

Unlike earlier Ferraris, the 250 series is exceedingly easy to drive and one need not use all the potential speed. All in all, this newest Ferrari is a most desirable car.

General specifications: Wheelbase, 102.4 inches; front tread, 53.3; rear tread, 54.7; overall length, 185; width, 65; height, 51.5.

Other versions: Berlinetta coupe (280 hp), $12,600; California convertible, $12,600; 410 SuperAmerica coupe, (approx.) $18,000.

FERRARI 250 GT 2+2, coupe, $12,600, Italy

Few indeed are the sports car fans who have never dreamed of owning a Ferrari. Unfortunately, for most it remains a dream. There just aren't enough to go around. For example, only 1000 will be built of this newest series, the first production Ferrari to be graced with a rear seat.

Replacing the 250 GT coupe, the 2+2 retains all the older car's mechanical features and adds some fascinating new ones. First, the rear seat room was achieved by lengthening the car about a foot and moving the engine six inches forward. Profile is 2½ inches lower and the improved streamlining raises top speed slightly. With the standard 4.56 rear axle and Laycock overdrive, top speed is about 130 mph. Other ratios are available for higher potential top speeds. Acceleration to 60 takes only about eight seconds; 0 to 100 and stop is possible in under 25 seconds.

The magnificent three-liter (180.1 cubic inches) overhead-cam V-12, developing 240 hp at 7000 rpm, is one of the smoothest, most flexible engines in existence. While not recommended, it will pull smoothly in fourth gear from 20 mph. Obviously, the fun of a Ferrari is using all four of the Porsche-type gears, feeling out the terrific cornering ability, cruising serenely at 100 mph, then exercising the Dunlop disc brakes for a fast stop.

FIAT 1200, convertible, $2595, Italy

In Italy it is called a spider, but to American eyes it is a convertible, designed and built as a two-passenger sports-type machine. With the same engine, clutch, transmission, suspension, brakes and wheels as on the 1200 sedan, but lighter in total weight, performance is greatly enhanced over the four-door model.

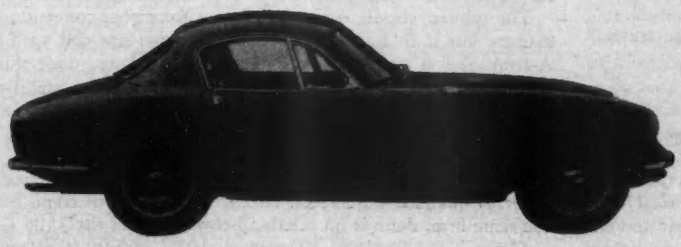
The 74.5-cubic-inch engine (63 hp at 5300 rpm) is good for a factory-rated top speed of 90 mph. Acceleration is more than enough to stay with traffic, and there is a large measure of fuel economy, all factors intended to make the 1200 a well balanced boulevard sports car.

Quality of finish and interior fittings is typically Fiat — carefully done with much attention to detail. Individual bucket seats are close to the floor, but driving position is good. Control for the four-speed gearbox is on the floor, unlike the sedan. Ride is relatively soft for a sports car, a point in its favor for fans who want style and as much comfort as possible.

Of similar appearance, but with vital differences underneath the unit-construction body, is Fiat's 1500 convertible. Its powerplant is derived from the famed Italian Osca racing engine with twin-overhead camshafts. Displacement is 90.9 cubic inches and its four cylinders develop 90 hp at 6000 revs, giving it a rated

BERKELEY BANDIT

FERRARI 250 GT



LOTUS ELITE

FIAT 1200

top speed of 106 mph. Its general performance and handling are a great deal more sporting than those factors on the 1200.

The 1500 is identical in physical size. Suspension is similar to the 1200, independent front, leaf spring rear, and the four-speed transmission differs in that ratios are more evenly spaced in the 1500. Because of the twin-cam engine, the 1500 is more exciting to the confirmed enthusiasts; the 1200 remains a suitable choice if high-revving performance is not the primary goal.

General specifications: Wheelbase, 92.1; front tread, 48.5; rear tread, 47.9; overall length, 158.6; width, 59.9; height, 51.3.

Other versions: 1500 convertible, $3298.

JAGUAR, body style N.A., $N.A., Great Britain

Working in absolute secrecy, with an air-tight security network around the factory, Jaguar has developed a successor to the XK-150. Although there has been a great deal of speculation about the new car (mostly incorrect according to Jaguar), about the only thing that is really known is that it will be announced to the world at the New York Show in April. So cautious is Jaguar that at our presstime absolutely no facts were available about the car. It is possible to be certain of one thing — Jaguar will continue in their tradition of producing a finely-engineered, meticulously-constructed, high-performance sports car which will win praise from grateful owners around the world.

Other versions: Information unavailable at presstime.

LANCIA APPIA, Farina-bodied coupe, $4438, Italy

Although the Appia sedan is covered in a separate description, the three semi-custom sports-type bodies offered on the Appia chassis are of sufficient interest to merit additional coverage. Mechanically, this trio is identical to the sedan, except that the engine has been mildly hot-rodded, raising horsepower to 54 at 4900 rpm.

The first coupe, by Farina, is simple in design, has plenty of window area, and is termed by Lancia "the car for the lady and the businessman." Top speed is rated at 90 mph. The convertible is quite similar in style but its body is executed by Vignale. It too has a factory-designated 90-mph maximum.

Considerably more sporting because of its surface shape is the Zagato-bodied coupe. Lighter in weight and better streamlined, its top is said to be 93 mph. Although its competition potential is questionable, optional extras include bucket seats, side and rear windows in plexiglass, and a wood-rimmed steering wheel, — all items that are usually reserved for quick sports-racing machines. All three cars are available through Lancia dealers.

General specifications: Wheelbase, 98.7 inches; front tread, 46.4; rear tread, 46.5; overall length, 162.5; width, 58.6; height, 50.8.

Other versions: Vignale convertible, $4490; Zagato coupe, $4558.

LOTUS ELITE, coupe, $5323.30 (West Coast p.o.e.), Great Britain

The Elite, a coupe that looks fast while standing at the curb, continues in its exotic form without change this year. There has, however, been an addition, a Special Equipment model especially suitable for competition. Both have the smoothly finished stressed and reinforced fiberglass body that has proven the practicality of this material in coupes.

The two versions differ in power train. From the basic 75.25-cubic-inch, overhead-cam engine the standard Elite is rated at 75 hp at 6100 rpm and the S.E. has 83 horses at 6500. It gets the extra boost through dual carburetors and a freer exhaust system. Standard gearbox is a BMC unit, while the S.E. has an all-synchro ZF box with closer ratios.

Interior finish is quite good. There are two comfortable racing-type bucket seats and plenty of legroom. Storage area is divided between space behind the seats and a small trunk. The driving position is set up in the classic arms-out position, which is not uncomfortable but takes some getting used to. Although the side windows resemble roll-ups with windwings, the entire assembly snaps out.

Front suspension is all-independent through A-arms and combined shock-coil spring units; rear suspension is also independent by a system worked out by Lotus builder Colin Chapman. It makes use of the tubular shock to determine the camber angle of each wheel, while the fixed-length axle shaft, jointed at each end, provides lateral location. Steering is by rack and pinion while 9½-inch disc brakes are used all around.

The Elite is very fast, about 120 mph, and very light, under 1300 pounds, which means good acceleration. Further, it is an exciting car to drive, a real thrill to handle.

Lotus builds various series of sports-race and formula cars that have achieved a worthy international reputation. They are available on order. Shipments of the S.E. are expected but no delivered price is available.

General specifications: Wheelbase, 88 inches; front and rear tread, 47; overall length, 144; width, 58; height, 46.

Other versions: Special Equipment Elite, $N.A.

MASERATI 3500 GT, coupe, $11,400, Italy

One of the world's most exciting motorcars, the Maserati's elegance is matched only by its brilliant performance. And brilliant refers to a top speed of somewhere around 145 mph (depending upon optional rear axle ratios) and a zero-to-60 acceleration of under eight seconds.

It all comes about through a husky in-line Six (212.7 cubic inches) with twin-overhead cams. Power output is a healthy 230 hp at 5500 rpm with fuel fed through a trio of dual-throat Webers. With a substantial racing heritage behind it, the engine nevertheless idles nicely at 1000 rpm and will pull in fourth gear from just above that.

The lever from the all-synchro ZF transmission is well positioned for driver ease, as are the wheel, instruments and leather-covered seats. Rear seats in the really plush interior come very close to being adult size but head- and legroom are limited. A large trunk invites touring in the grand manner — the car's intended use.

Little is left to be desired in the Maser's road behavior. It's big and it's fast, but steering is light and responsive; the car goes where it is pointed at near-impossible speeds, and brakes (Girling discs at front) are capable of bringing the car down from high speed time after time without protest.

The tubular chassis is suspended in a somewhat conventional manner but it is done properly. At the front are coil springs, A-arms and a stabilizer bar; the rear has long, underslung semi-elliptics, trailing radius rods, tubular shocks, a stabilizer bar and a third horizontal tubular shock that damps out fore-and-aft axle motion.

Recently, Maserati has had great racing success with its sports-racing Birdcage model, which is available on special order to qualified purchasers. Except that they both come from the same firm, there is no relation between it and the 3500 GT.

General specifications: Wheelbase, 102.3 inches; front tread, 54.7; rear tread, 54.5; overall length, 189; width, 68; height, 51.

Other versions: Convertible, $12,300.

MERCEDES-BENZ 190-SL, convertible, $5032, Germany

The first 190-SLs arrived in the U.S. during 1955 and development has been a process of gradual evolution since then. In fact, there has been very little change and no major modifications. The car remains one of the finest two-liter, sports-type touring cars on the road.

An overhead-cam engine (115.7 cubic inches) develops 120 hp at 5700 rpm — excellent output per cubic inch. What is remarkable is that the four cylinders run so smoothly they give the illusion of at least six. Rated top speed is 112 mph with acceleration to 60 (a function of the 2510-pound curb weight) in about 13 seconds. Highway cruising up to 80 mph is quiet and comfortable; steering is quick enough for good cornering control and light enough for easy parking. Shifting the floor-controlled, all-synchro, four-speed gearbox is one of the 190-SL's special delights.

Front suspension utilizes conventional A-arms, coil springs and a stabilizer bar, but at the rear is a system pioneered by Mercedes — the low-pivot swing axle. With coil springs it greatly aids in the car's general stability and excellent ride.

The interior, two bucket seats and a jump seat, is finished in soft leather. Seats are scientifically contoured to the body and are among the most comfortable in any automobile. Instrumentation is most complete, with such rarely found controls as a manual spark and a hot start knob. There are roll-up windows, weather-tight convertible top (standard) and an optional removable hard top.

General specifications: Wheelbase, 94.5 inches; front tread, 56.3; rear tread, 57.9; overall length, 166; width, 68.5; height, 52.

Other versions: Hardtop, $5244; with both tops, $5428.

MERCEDES-BENZ 300-SL, convertible, $10,950, Germany

The 300-SL bristles with originality, yet is a modern classic as concerns its ability to carry two at sustained fantastic speeds in utter comfort. Its price tag gives some idea of what to expect; at that the car cannot be called over-priced.

An in-line overhead-cam Six (182.8 cubic inches) develops 240 hp at 6100 rpm and is the world's only production engine to use Bosch fuel injection. Top speed is limited only by the highway and at around 146 mph (with 3.64-to-1 rear axle) becomes academic. Acceleration through the four synchronized gears is extremely quick with excellent torque response at virtually any speed. Cruising at 100 mph along the open highway is almost too effortless; wind and engine noise are no greater than at half that speed in lesser automobiles.

In traditional M-B fashion, interiors are tailored for luxury and comfort. A glittering array of instruments faces the driver and they all serve a useful function at some phase of the car's operation. There is no storage space in the cockpit and trunk space is not large; it is almost filled with a spare tire and fuel tank.

Front suspension is via parallel A-arms and torsion bars, while at the back there is a horizontal compensating spring on the low-pivot swing axle. As a consequence, cornering is almost dead flat and straight-line stability is great. Mercedes clings to drum brakes (with boosters) but they are so perfected that there has been no need to go to discs.

General specifications: Wheelbase, 94.5 inches; front tread, 55; rear tread, 57; overall length, 180; Width, 70; height, 51.3.

Other versions: Coupe with removable hard top, $11,128; with both tops, $11,397.

MG-A 1600, roadster, $2444, Great Britain

Sports car means MG to many people and small wonder; the firm's octagonal emblem was one of the first to be seen in the U.S. after World War II and it is still prominent in any roll of sports cars.

The MG-A's theme might well be called simplicity. Its 96.9-cubic-inch, four-cylinder engine is straightforward and uncomplicated, turning out its 83 hp at 5600 rpm. There is enough push to break 100 mph and accelerate to 60 in just about 13 seconds in absolutely stock trim. Race fans, however, find that some moderately expensive super tuning will considerably improve the car's performance. For the more conservative there is fuel economy in the mid-20s built in.

One might gauge how a medium-priced sports car should ride and handle by the MG. It handles very well. There is precise and accurate steering possible without fighting for it, and the disc brakes in front permit stopping quickly with no fade. Ride is firm but not harsh.

The interior is built for two, with seating low but reasonably comfortable. The folding top takes up the space behind the seat, leaving only the small trunk for packages. When the top is up, weather protection is good. There are no roll-up windows (except in the coupe) but the metal-framed curtains have sliding windows and are the next best thing to windows. An examination of exterior panels and interior trim reveals the A to be exceptionally well finished throughout for this price class.

General specifications: Wheelbase, 94 inches; front tread, 47.9; rear tread, 48.9; overall length, 156; width, 58; height, 50.

Other versions: For removable hardtop add $275 to roadster; roadster (wire wheels), $2544; coupe (disc wheels), $2667; coupe (wire wheels), $2767; Twin-cam roadster, $3069; Twin-cam coupe, $3263.

MORGAN PLUS-4, two-seat roadster, $2810, Great Britain

There is little that smacks of progress in the Morgan, but that makes it no less desirable. When the firm gets a good thing it hangs onto it. Morgan (or Mog) enthusiasts still feel somewhat betrayed that the firm decided to make the move from three-wheelers in 1936.

Today's Plus-4 is powered with a Triumph TR-3 engine (121.4 cubic inches) that develops the TR's 100 hp at 5000 rpm. Acceleration to 60 mph, about 10 seconds, is better than the TR because of a weight differential, while top speed is approximately 105.

The ride is bone-hard on non-adjustable pneumatic seats. (You adjust to the Morgan's wheel and pedals.) Some of the few concessions to progress include disc brakes, now standard on the front, and independent front suspension, which is almost as solid as a beam axle. There isn't much that can be called luggage room, and while there is a top and side curtains, the car is designed for open running.

In spite of it all, the Morgan has tremendous charm. It can be thrown around a race course or a mountain hairpin with great abandon in the knowledge that it really does handle as well as it seems to.

There are a number of racing options available, including an aluminum body for $175 extra and (soon) a more powerful TR engine with Weber carburetors and smoother exhaust manifolding.

Because the cars are virtually hand-built in a small factory, production is low. That has been no deterrent to producing another roadster, the 4/4 Series III. It is the same physical size but styling varies slightly. This year it is powered with the Ford Anglia engine (60.8 cubic inches) that has proven itself quite responsive to race tuning. The probability of improving the Anglia's 39 hp should make this attractive to low-budget road racers.

General specifications: Wheelbase, 96 inches; front and rear tread, 47; overall length, 144; width, 56; height, 51.

Sports Cars

Other versions: Four-seat roadster, $2850; two-seat drophead coupe, $2970; 4/4 Series III two-seat roadster, $2240.

PORSCHE 1600, roadster, $3780, Germany

If owner enthusiasm has any bearing on the fact, then the Porsche is a better-than-average sports car, for its owners are vociferous in their praise. And it doesn't seem to matter which of the three engine or four body styles is owned; praise is about equal.

The Porsche is a rear-engined, all-independent-suspension automobile, much as the Volkswagen in principle in that the engine is an air-cooled, flat Four. Of the three 96.5-cubic-inch engines, the Normal develops 60 DIN hp (about 70 SAE), the Super, 75 hp (about 88 SAE), and the Super 90 has 90 hp (about 102 SAE). Performance increases accordingly; top speed of the Normal is just over 100 mph with zero to 60 in about 15 seconds. The Super 90 can reach 60 mph in around 12 seconds and has a top end of 115 plus.

There are four bodies offered, each with any engine. The least expensive, called the roadster, is a true convertible because it has roll-up windows. It does not have the nicely upholstered occasional rear seat that is included in the rest of the line. The coupe is just that and can be had with a sunroof; the cabriolet is the line's plush convertible with a richly padded top and door vent panes to distinguish it from the roadster; and the hardtop has a removable solid top on the cabriolet chassis. In any Porsche combination the fit of panels, exterior paint, upholstery quality, shape of seats, and any other area of auto quality can scarcely be bettered at any price.

One of the most pleasing elements of the car is the wonderfully slick four-speed transmission. As it is coupled with featherlight steering, top-quality brakes and most pleasing ride, the combination is an enthusiast's delight.

The four-overhead-cam Carrera coupe, formerly a production item, is now a special-bodied racing car and available in limited quantity. In addition, the RS-61 Spyder is strictly for racing, and only a few are produced for sale to private owners who can uphold Porsche's winning ways. If a race fan wishes, it is possible to prepare one of the production Porsches for amateur sports car racing for a few hundred dollars and be competitive enough to win class trophies.

General specifications: Wheelbase, 82.7 inches; front tread, 51.4; rear tread, 50.1; overall length, 157.7; width, 65.7; height, 51.6.

Other versions: Super roadster, $3995; Super 90 roadster, $4320; coupe, $3920; Super coupe, $4140; Super 90 coupe, $4470; hardtop, $4170; Super hardtop, $4390; Super 90 hardtop, $4720; cabriolet, $4250; Super cabriolet, $4470; Super 90 cabriolet, $4800.

SUNBEAM ALPINE, roadster, $2595, Great Britain

Apparently with an eye to the best possible engine displacement for class racing, Rootes has bored out its Alpine engine from 1497 to 1592 cc (97.1 cubic inches) as the major change for 1961. With horsepower of the four-cylinder ohv engine now up to 85.5 at 5000 rpm, there is a corollary advantage in that performance should now be more easily attained and engine life lengthened. In addition, there are detail changes to carburetion, clutch and interior appointments. The two Zenith carburetors now have 30mm venturis instead of 28s. As for the clutch, need for adjustment is avoided due to an hydraulic cylinder which automatically takes up free play.

Acceleration is quite good — zero to 60 in about 14 seconds and a top speed just at 100 mph. The brakes to handle this speed are discs on the front, drums at the rear, and they do an excellent job. Ride and handling characteristics are considered good; there is fine two-passenger comfort for boulevard or touring, while recent amateur racing successes indicate that the car is manageable at high speed.

Interior finish is well executed and in good taste. There are individual seats with a package area-children's seat behind. The floor-mounted shift lever for the four-speed transmission is conveniently placed and has a short throw. Also of driver interest is the complete instrumentation located in good view. An overdrive with a dash-mounted switch is optional. Although it is termed a roadster, there are roll-up windows and an optional hard top. However, weather is well sealed out with only the soft top in place. Changes in the cockpit include a smaller wheel placed higher for better thigh clearance, and the option of moving the pedals farther from the driver for increased legroom and a better seating position for those with long limbs.

General specifications: Wheelbase, 86 inches; front tread, 51; rear tread, 48.7; overall length, 155.3; width, 60.5; height, 51.5.

Other versions: Only version available.

TRIUMPH TR-3, roadster, $2675, Great Britain

Since its introduction in this country in 1954, the TR-3 (at that time called the TR-2) has met with great success from buyers who want an ample supply of performance per dollar. Not that the car is lacking in other ways, but it has always had a well-deserved reputation for going places in a hurry. That reputation should continue, because there are no essential changes in the '61 model.

Heart of the TR is a four-cylinder, 121.4-cubic-inch engine that cranks out its throaty 100 hp at 5000 rpm. It couples a factory-rated top speed of 110 mph and a zero-to-60 time of 12 seconds with considerable reliability. An example is one of several international class E records held by a stock Triumph — 5000 miles averaging 102.5 mph. An added feature is fuel economy — the high 20s and low 30s per gallon are typical of owner figures which are at their best if the optional overdrive is installed.

PORSCHE

VOLVO P-1800

Driving the TR is fun. Along with the acceleration mentioned is quick and precise steering, a short, floor-mounted shift lever for the four-speed gearbox and handling characteristics with race-course potential. In fact, adding a few competition options, namely special springs and shocks, makes the TR a car to be reckoned with in its racing class. Ride is firm but pleasant. There are disc brakes on front plus rear drums; suspension is independent at front with semi-elliptic springs at the rear.

Individual seats have wrap-around backs, and there is a children's rear seat available. Trunk area is nominal but combined with the space behind the seats, there is more total storage than in most sports cars.

Because of the cut-down doors there is no room for roll-up windows. Sliding-pane side curtains are the result, and they provide good rain and wind protection. With optional hard top the TR-3 is as tight as any coupe.

General specifications: Wheelbase, 88 inches; front tread, 45; rear tread, 45.5; overall length, 151; width, 55.5; height, 50.

Other versions: Hardtop, $2835.

VOLVO P-1800, coupe, $3940, Sweden

It's a bit too early to tell, but all indications point to the fact that Volvo's initial entry into sports car building will be a huge success. At early showings public reaction to styling has been favorable. Performance is in keeping with the trend to high usable cruising speeds along with safe handling, while mechanical design is straightforward enough so that a prediction of good reliability is not out of order.

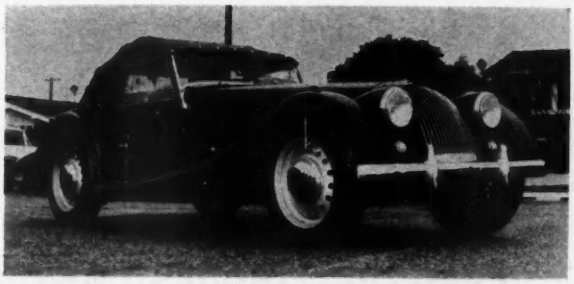
The engine is similar to that used in Volvo's sedans, but it has its own characteristics. Of four-cylinder ohv design, it displaces 108.5 cubic inches, and develops 100 hp at 5500 rpm. Transmission is a four-speed, all-synchro, with shift lever mounted on the floor. There is an optional overdrive, which will aid economy and engine life at high speed. Top speed, incidentally, is rated by the factory at 110 mph. Zero-to-60 acceleration is around 12-14 seconds. Suspension units, independent front with rigid rear axle on coil springs, are the same as used on Volvo's 122-S sedan. Braking is through front discs with drums on the rear.

Inside the roomy cockpit are a pair of low bucket-type seats. The dash, door panels, seats and upholstery are all executed in a more lavish manner than one usually associates with a sports car. It all contributes to the fooling of the car's intended purpose — comfortable, fast touring in style. To insure touring pleasure there is a generously sized trunk.

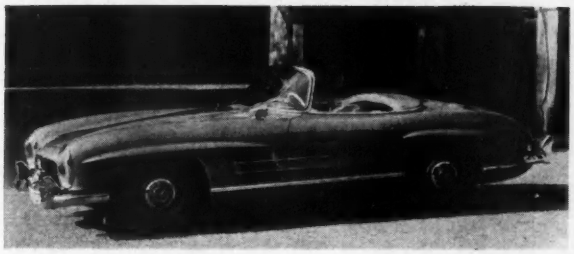
On the road the P-1800 demonstrates reassuring qualities of stability with good adhesion in turns. Flexibility is shown by the car's being able to lug along at low speeds in fourth gear without difficulty.

General specifications: Wheelbase, 96.5 inches; front and rear tread, 52; overall length, 173; width, 67; height, 51.

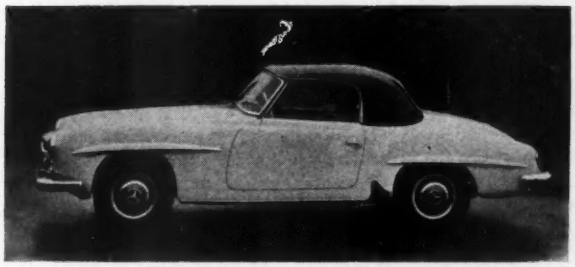
Other versions: No others available.



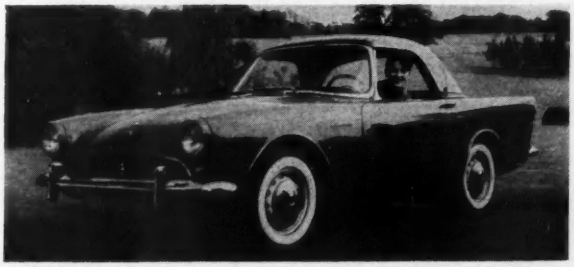
MORGAN PLUS-4



MERCEDES-BENZ 300-SL



MERCEDES-BENZ 190-SL



SUNBEAM ALPINE

TRIUMPH TR-3

MG-A

CADILLAC, LINCOLN-CONTINENTAL AND IMPERIAL OFFER THREE DISTINCT APPROACHES TO PRESTIGE DRIVING

CADILLAC, Imperial and Lincoln Continental are names that impress and fascinate almost everyone. These makes represent Detroit's three most luxurious versions of the standard-size car. And despite the rapid increase in popularity of expensive specialty cars — Corvette, Chrysler 300 and Thunderbird, to name a few — the "luxury three" are still considered by many to be the best of everything an automobile should be. To some extent this is true and justifiable.

But from a more practical and realistic viewpoint, Detroit's luxury cars do not necessarily always represent the "best of everything." It is true that the cars in this class are different, but the differences are often subtle, and are made for a specific reason.

There is another almost universal misconception about the differences of the luxury field — that the engineering is radically changed from their companion makes. Actually, the reverse is more accurate. Each individual make, to a great extent, follows the fundamental engineering concepts of its corporate relatives.

Nor is the difference one of size. A Buick, Oldsmobile or Pontiac can be longer than a Cadillac, while a Mercury is actually longer, wider and higher than a Lincoln Continental. Luxury cars do not always have the most generous interior dimensions either: a Plymouth has more hip space than an Imperial; a Chevrolet more headroom than a Cadillac; and a Ford more legroom than a Lincoln Continental.

These unusual comparisons could be the basis of long and detailed arguments as to which class of cars is actually the "best." A discussion like this would be as unfair as it would be pointless, for it would overlook the most important and significant difference between the two classes — the purpose of the car.

The purpose of the luxury class stated simply would be — luxurious transportation. Every single design factor is slanted toward this single objective. Overall workmanship is higher, quality standards more rigid and the choice of materials (especially in interior trim) is generally limited to more expensive selections. Passenger compartments are exceptionally well sealed from outside noises, suspensions are soft in deference to a better ride and power trains are geared to quiet operation and moderately good performance.

Since the luxury field can, and must, be judged by a single set of standards, it is only natural that MOTOR TREND would test all three makes simultaneously. But there is another factor which is equally important that can be accurately analyzed only by examining the entire class together.

Detroit frequently uses the prestige of its prestige cars to introduce or popularize a new idea or trend in automobile design or practice. The best examples are usually found in accessories. Many of those items which are considered extra on other lines are standard equipment on the luxury class. Automatic transmissions, power brakes and steering are standard on all makes. Radios, heaters, power windows and even power wind vents are standard on other individual makes.

But the most significant trend in the luxury class is not found in mechanical devices — it is one of size and body styles. The most dramatic change is in the completely new Lincoln Continental, which is 15 inches shorter this year. Cadillac originally reduced its length only three inches, but gave further emphasis to the trend for shorter cars by introducing a mid-year model fully 10 inches shorter than last year's. Only Imperial grew in size in 1961, and these gains were relatively insignificant.

Although not so pronounced, the trend in fewer body styles is also becoming apparent. Lincoln Continental is also the most dramatic, with its drop to two different styles. Imperial offers six, but half of these involve changes in trim. Cadillac has 12 styles, but these are variations of the hardtop theme.

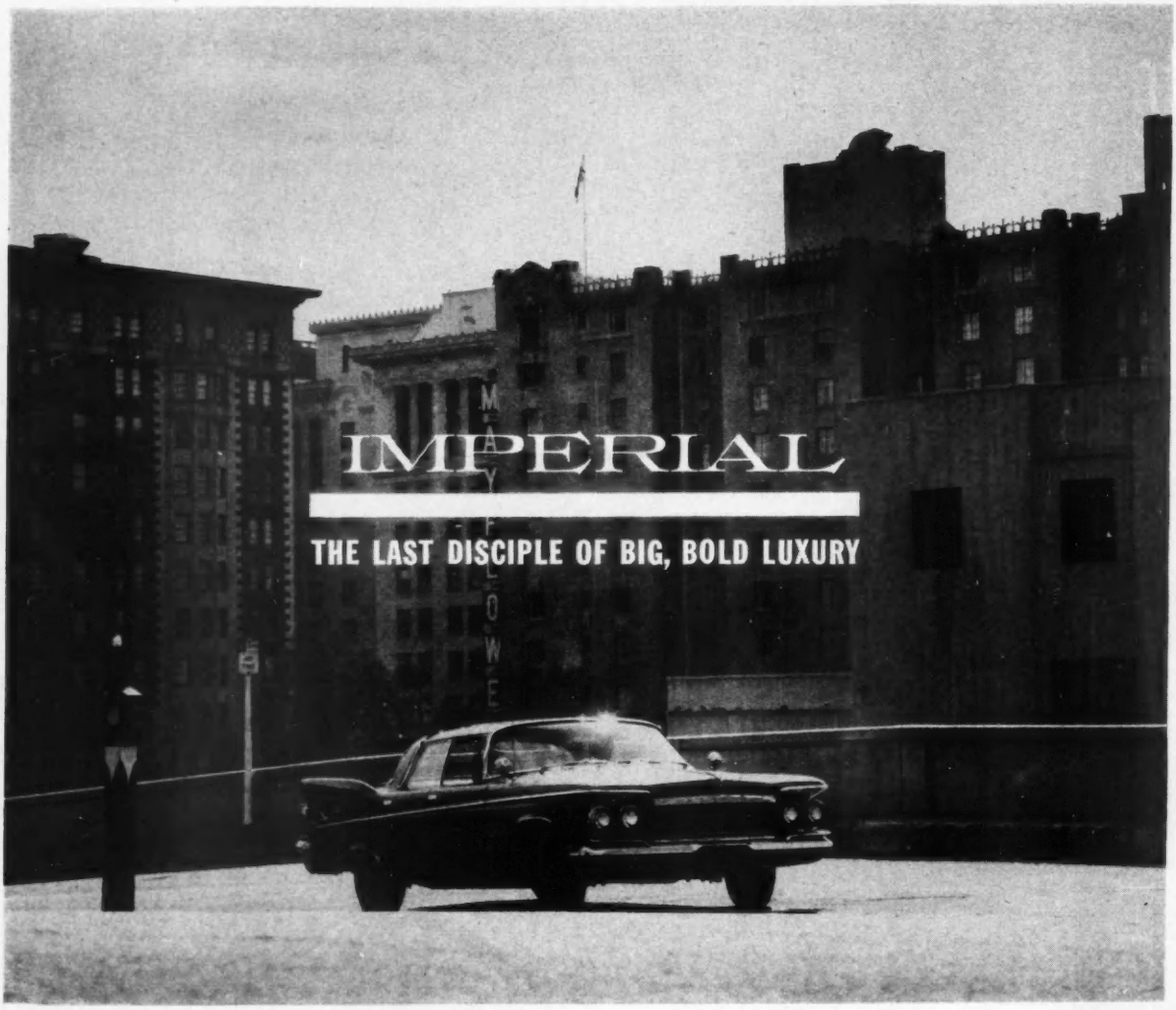
The road testing procedure was thorough and extensive. All the cars were driven on long trips, up to a thousand miles, at highway speeds. And each car was used in heavy city traffic for several days.

Generally speaking, the luxury class scored high in comfort, ride, detail quality, back seat room and accessory placement. Conversely, the whole class was judged lacking in overall handling, traffic and parking maneuvers, storage space (both trunk and glove compartment) and in engine accessibility.

One generality which is a little unusual is only a natural result of heavier weight and big-displacement engines. Gas mileage varies more than on any other class of cars. Any luxury car may get as much as four miles less per gallon in traffic driving as opposed to highway driving. One car turned in five separate mpg figures for five separate tanks. These ranged over the entire five-mpg spread quoted for the car. More than in any other class of cars the economy factor is exceptionally variable.

But the single observation that can be made about the entire luxury class has not changed — and has been as important for many years. The most outstanding feature of any of the cars is its name. To many persons this means more than any styling or engineering feature /MT

TESTING THE LUXURY CARS



IMPERIAL

THE LAST DISCIPLE OF BIG, BOLD LUXURY

IMPERIAL IS THE LEAST CHANGED of the luxury three this year. It also holds the distinction of being the biggest Detroit production car of 1961. This may put the Imperial at some disadvantage, since the general trend in this class seems to be toward shorter length and narrower cars. On the other hand, there are many persons who automatically associate luxury and prestige with opulence. No other American-made car can quite equal the Imperial in either plushness or size.

This year the line is available in three body styles, a two- and four-door hardtop and a convertible. The test car was a four-door hardtop. Imperial's 413-cubic-inch V-8, while not the biggest in the luxury class, is the most powerful. With a four-barrel carburetor it produces 350 hp at 4600 rpm and 470 lbs.-ft. of torque at 2800 rpm. Automatic transmission is standard, and the test car had a 2.93-to-1 rear axle ratio. This power team sums up Imperial's option picture, and the only accessory which would change the test results is a limited-slip differential. It is doubtful if this would actually alter any of the recorded figures except performance, and these only insignificantly.

Although the line does not offer engine options, the powerplant is certainly adequate. Imperial lacked only one-tenth of a second of being the best performer in the luxury class. Since the test car was the heaviest of the three tested, it can be rightly assumed that the bigger powerplant is more of a necessity than an advantage. With passengers aboard, Imperial will have a gross weight of nearly three tons. Considering this weight. the performance of the engine is excellent. Mid-range traffic passing ability is also good, and the car accelerates effortlessly from any speed.

This performance is also due to the automatic transmission. Imperial's standard unit is Chrysler Corporation's Torqueflite, a three-speed transmission with a conventional torque converter. This transmission is one of the smoothest and most efficient in any domestic make, regardless of price.

Few engineering changes were made in the V-8 this year, the most important being the dropping of the old DC generator and the adoption of the alternator. Reversing the usual procedure of introducing new devices on the most expensive line, Imperial got this advancement a year later than the corporation's least expensive compact. The advantages of the alternator, therefore, are pretty well known. Briefly stated, the AC unit supplies current to the battery at idling speeds, a feature which the DC generator did not have. This ability is a more important advantage in a car like Imperial, that has many electrical accessories putting a heavy strain on the battery.

Handling and ride are two qualities that decrease and increase respectively as weight and length are added to any car. In Imperial's case, however, the ride is

the equal of any domestic car, while general handling characteristics are superior to any of the luxury three.

This is due in part to the torsion bar springing in front and the semi-elliptical leaf springs in the rear; and in part to the way in which Imperial engineers have solved their overall geometry problems. Springing is stiff, but not too stiff, so that while the ride is firm it is not harsh. Hard cornering will produce lean, but not to the extent that might be justifiably expected in a car that weighs over 5000 pounds.

This does not mean that Imperial can be dashed into sharp corners at excessive speeds. Far from it, in fact. An Imperial is simply not built for spectacular driving, nor is any luxury car. It does mean that an Imperial can be driven on winding roads faster and more precisely, with less discomfort to the passenger, than many cars which weigh at least a thousand pounds less.

Although on the open highway the Imperial ranks high in handling, its slow speed and traffic maneuvers are probably the most difficult of any car. This stems largely from size, but the styling is a contributing factor. The hood is so high in relation to the driver's eye level that he cannot see the road close to the front wheels and all maneuvers are largely a matter of intuition. This, coupled with the largest turning circle of any Detroit car (48.2 feet curb-to-curb) and moderately slow steering, makes the car difficult to park or handle in heavy traffic.

One of the Imperial's most admirable qualities is an exceptionally well sealed passenger compartment. Neither wind noises nor drafts annoy passengers, and no engine vibrations are transmitted. True, this is a fundamental of luxury cars, but Imperial excels in this characteristic.

Inside the passenger compartment the layout has not changed fundamentally, although the instrument cluster is all new. This year the cluster is housed in a deeply recessed horizontal area. The drum speedometer is a thermometer type which is difficult to read quickly and accurately. One commendable feature is the decision to retain indicator gauges for the battery and oil pressure.

The steering wheel on the test car was of the square type. This is actually more square than an illustration will reveal, since the sides are curved and create an illusion. Driving with it is unusual, but the driver soon becomes accustomed to it. Its value or liability is largely a matter of personal preference, although there is no doubt it will score high with shorter

Instrument panel is completely redesigned but retains electroluminescent lighting system from last year.

individuals who have had difficulty seeing over some of the larger steering wheels in the past.

Another place where the Imperial scores high is in passenger compartment dimensions. Overall they are generous, and some are the biggest of all passenger cars. The back seat is especially roomy, with extra-good legroom. Since the front legroom is nearly 47 inches, the front seat is ordinarily adjusted forward, making the back even roomier. One poor feature, however, is the transmission hump, which is large and practically cancels out these advantages for middle-seat passengers.

In the matter of accessories, Imperial naturally has the usual ones expected in the luxury class. The test car was equipped with air conditioning. Two outlets mounted on the dash panel are one of the best arrangements in domestic cars. Cool air is transmitted high in the passenger compartment, where the air becomes most effective for cooling the entire area. In strange contrast, another outlet is located just below the driver's feet, where it would cause a continual cold draft on his legs. This area is a sore spot on extra-hot days, when engine heat helps create an exceptionally uncomfortable situation. However, there is a possibility that the breeze could cause discomfort to some persons. Fortunately, the outlet can be shut off entirely so it can be used at the driver's option.

Another of Imperial's accessories, the Auto Pilot, is worthy of comment. This is one of the better devices for controlling speed, currently being offered as a production extra-cost accessory. Basically it is a governor which exerts a reverse pressure on the throttle when a pre-set speed is reached. It does not need to be re-set and will become effective any time the speed is reached.

Trunk storage space is adequate, but the placement of the spare tire, near the rear, cancels out a lot of usable space. A better arrangement would have been to mount the tire over the axle, where it would be difficult to stow luggage anyway. /MT

One of Imperial's most admirable qualities is the extremely generous legroom found in the back seat.

LINCOLN CONTINENTAL

THE ACCENT IS ON STYLE

NO TEST REPORT of the 1961 Lincoln Continental would be complete without a discussion of the styling. The line is the most changed of the luxury three, and the styling is one of the most distinctive in any domestic car.

Actually the styling theme goes back to the original Continental, and perhaps earlier, but is more closely identified with the Mark II concept. Unfortunately, the striking external appearance may overshadow some of the Continental's more laudable features, which are equally significant.

Only two body styles are offered this year, a four-door convertible and a four-door sedan. The latter was selected for this test and was equipped with a 430-cubic-inch ohv V-8. This engine is the biggest available (by displacement) in any American-made car. Formerly offered in Mercury, Thunderbird and Edsel, it is now a Lincoln exclusive. The present version has single two-barrel carburetion and turns out 300 hp at 4100 rpm and 465 lbs.-ft. of torque at 2000 rpm. Automatic transmission is standard and the rear axle ratio is 2.89-to-1.

This is Lincoln's only power train option and is unusual in that the Continental is the only luxury car which offers a two-barrel carburetor. Of course, this power team is set up for economy, speaking in luxury car terms, and the Lincoln Continental did turn in the best economy factor, 10-14 mpg, of the luxury three.

Naturally, performance can be expected to suffer, but the 0-60-mph figure of 12.9 seconds recorded by the test car is moderately good and certainly enough acceleration for all normal driving situations. The modified Borg-Warner automatic also responds well to a kick-down shift, and mid-range passing ability is fairly good.

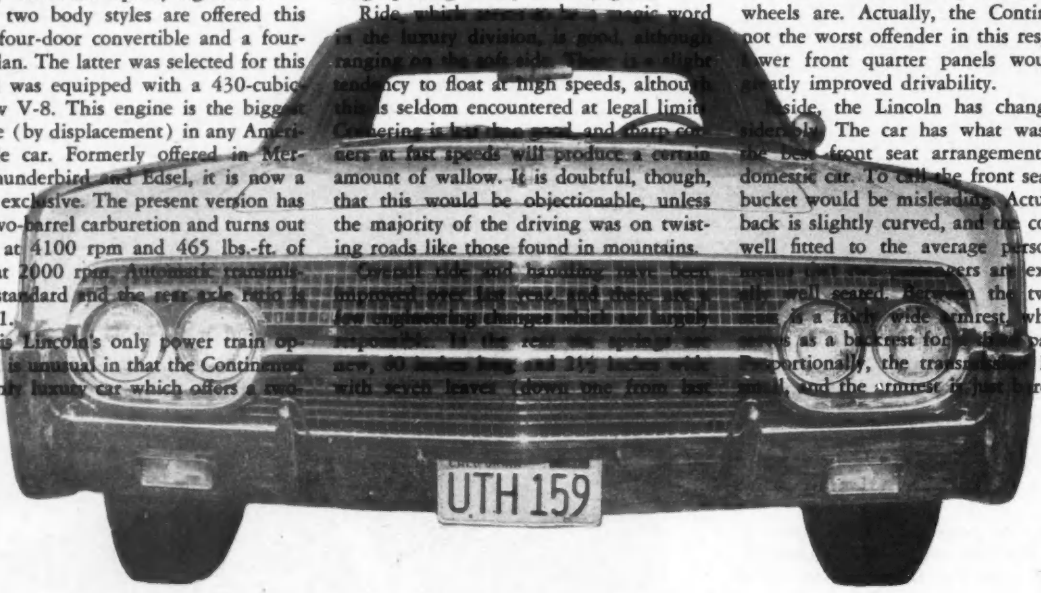
Ride, which seems to be a magic word in the luxury division, is good, although ranging on the soft side. There is a slight tendency to float at high speeds, although this is seldom encountered at legal limits. Cornering is less than good and hard corners at fast speeds will produce a certain amount of wallow. It is doubtful, though, that this would be objectionable, unless the majority of the driving was on twisting roads like those found in mountains.

Overall ride and handling have been improved over last year, and there are a few engineering changes which are largely responsible. In the rear the springs are new, 60 inches long and 2½ inches wide with seven leaves (down one from last year). But more important, both the rear and front wheels can move fore and aft as well as up and down. This is controlled in front by a drag strut and in the rear by an increase in the bushing diameter of the shackle. As was mentioned earlier, this has made an improvement in the handling, but the Continental is still not the equal of the better handlers in the luxury class.

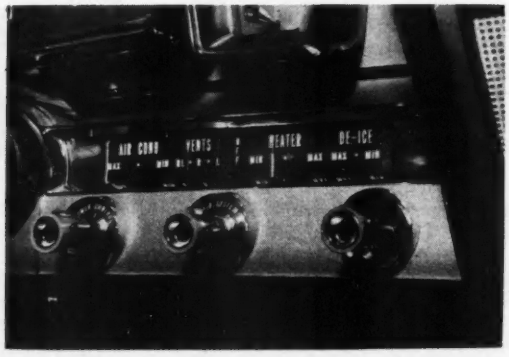
Along with its new styling, the Continental took on new dimensions. It is now the smallest of the luxury three. But strangely, Lincoln engineers have not been able to take full advantage of the smaller dimension.

Of course, it is obvious that parking lot behavior and traffic maneuvers are the natural result of shorter dimensions. This proved true with the Lincoln but with a not-so-obvious exception. The reason is perhaps the only serious criticism that can be made of the new styling. The fenders chop off the driver's vision and make it difficult to tell exactly where the front wheels are. Actually, the Continental is not the worst offender in this respect, but lower front quarter panels would have greatly improved drivability.

Inside, the Lincoln has changed considerably. The car has what was judged the best front seat arrangement of any domestic car. To call the front seats semi-bucket would be misleading. Actually, the back is slightly curved, and the contour is well fitted to the average person. This means that [illegible] are exceptionally well seated. Between the two front seats is a fairly wide armrest, which also serves as a backrest for the [illegible] passenger. Proportionally, the transmission hump is small, and the armrest is just barely wide



Horizontal panel directly above door lock control flashes red light if one or more doors are unlocked. Left side is brake warning light.



One switch (central control) is fresh air switch which dials in the proper setting for ventilation ducts, heater or air conditioning.

enough so that the third passenger can be seated in fairly good comfort for trips of moderate length.

The padding of the front seats came in for both commendation and criticism. It is one of the softest seats ever offered on a domestic car. On short trips it is exceptionally comfortable — as much so as sitting at home in an easy chair. On long trips, however, it offers little solid support and contributes to discomfort. Granted that the curved backs overcome much of this, but a firmer padding would have made more difference on trips of eight or ten hours' duration.

The Continental, despite its excellent front seat, has the most limited rear seat space available of the luxury three. Even when the front seat is adjusted fully forward there is scarcely room for a long-legged person to be seated comfortably, to say nothing of stretching out his legs. Like the front seat, it is softly padded and has an excellent armrest. Both front and rear entry and exit are above average, but the rear-hinged rear door causes some inconvenience.

The Continental's instrument cluster is new this year, and in marked contrast to the usual practice in the luxury division, is almost diminutive in appearance. It is not, however, difficult to read, and placement of the instruments was better than average.

Driver controls are simplicity exemplified, especially the fresh air controls. The Continental's arrangement for inside temperature control is the best seen on any car out of Detroit in years. Right and left fresh air vents, heater controls and air conditioning are all on one single control. In operation it is similar to tuning in a radio, a knob swings an indicator along a horizontal plane and "tunes in" the exact fresh air control desired.

Power window controls are mounted in the left-hand armrest and are convenient to operate. A switch which controls the power to the window units is located directly behind the up-and-down controls. When turned off, this makes it impossible for any passenger except the driver to raise or lower a window. Together with the automatic switch for locking the doors, this very effectively makes the car child-proof. Incidentally, the Continental was the only luxury car which had a warning light to indicate that a door was unlocked.

Perhaps it might be called a minor point, but the placement of the ash tray is particularly inconvenient. Mounted in the left armrest behind the power window controls, it is virtually imposible for the driver to place his ashes in with his left hand. It is necessary to hold the cigarette in his right hand and cross it over under his left arm to put out his smoke. This is a small detail, but attention to small details like this often spells out the difference between an expensive luxury car and a lower-priced car.

Trunk space in the Continental is the poorest in its class. Undoubtedly this results from the overall design, which was made to accommodate the convertible top. The top is stored in the trunk area and in the open-air version takes all the space. Due to this the sedan, while it has a genuine trunk, has little space to offer. /MT

Continental front seats are curved in a manner similar to, but not exactly like, semi-bucket seats. Third passenger can be seated in middle, although comfort over long periods of travel is questionable.

CONTINENTAL IS VASTLY RESTYLED OVER LAST YEAR, BUT CLOSE LOOK REVEALS MANY FAMILIAR TRACES FROM ORIGINAL CONCEPT.

CADILLAC

A NEW TREND TO CONSERVATIVE LUXURY

MORE THAN ANY OTHER single Detroit car, Cadillac has come to symbolize those things that the luxury class stands for. The road test conclusions indicate that this is largely justified. Strangely, Cadillac also has the most conservative overall design of any car in the luxury field. Undoubtedly the reason for this is that Cadillac long ago won its spurs as a prestige car and no longer needs to use startling gimmicks or garish ornamentation to make the car different.

The test car, a Sedan de Ville, was a four-door hardtop which Cadillac identifies as a six-window model. Essentially all closed Cadillacs are hardtops, the main difference being in the roof style. A four-window style has a flat roof with a bigger rear window. Rounding out the line are two convertibles and the limousines.

Cadillac has only one powerplant this year, the 390-cubic-inch V-8 that has been revised several times since it first appeared in 1949. There have been no basic changes this year except that no options are offered; the triple two-barrel version of last year has been dropped. The four-barrel version of the test car produces 325 hp at 4800 rpm and 430 lbs.-ft. of torque at 3100 rpm.

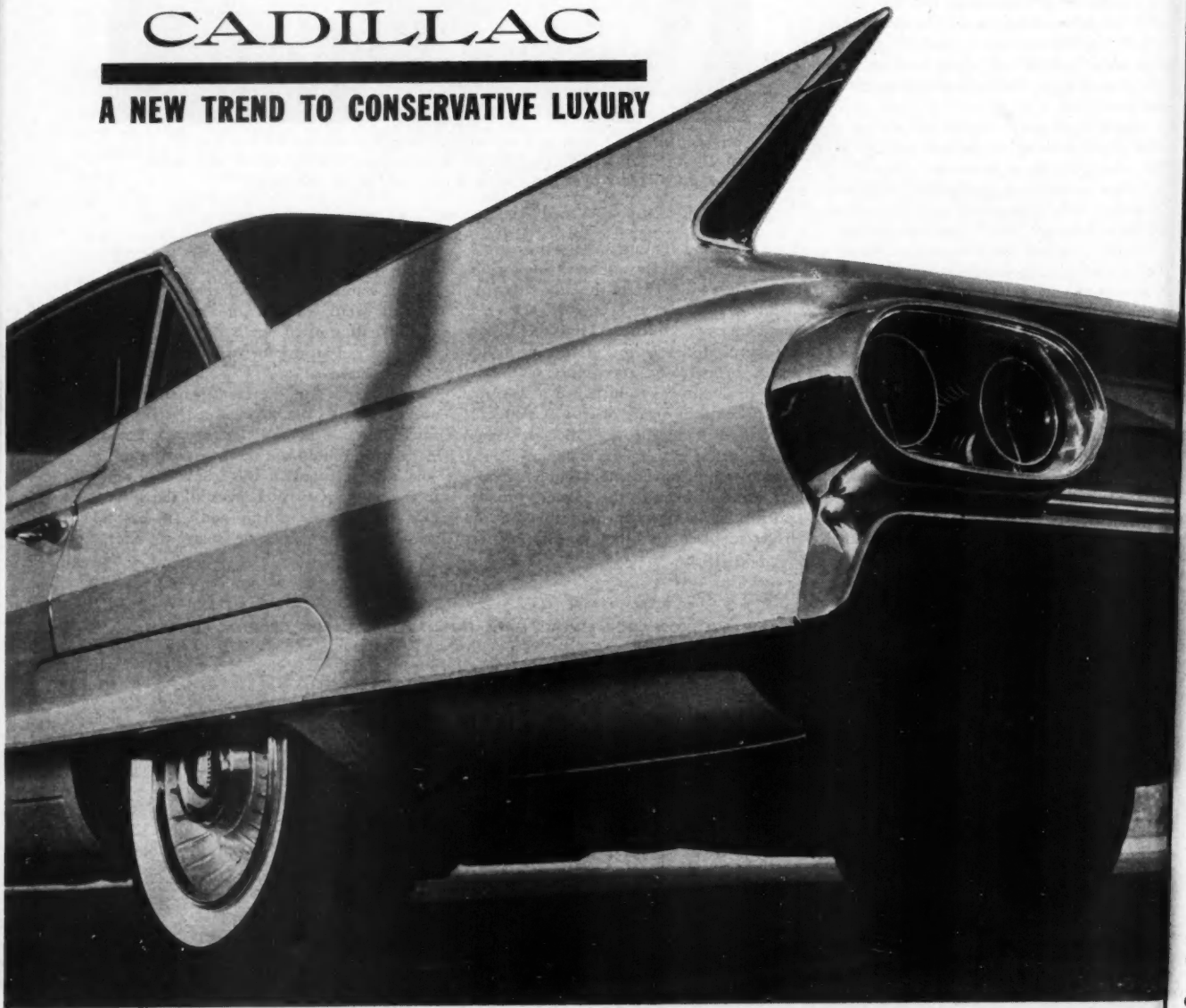
The rear axle ratio was 3.21-to-1. Three other gearsets are available, 2.94, 3.36 and 3.77. However, Cadillac does not encourage interchanging the ratios and flatly states that the 3.21 is mandatory when equipped with air conditioning.

When the acceleration tests were finished, Cadillac proved to be the best performer of the three, but only by one-tenth of a second at the 0-60-mph mark. Judged by a broader scope of cars, it falls into the moderately better performers. Of course, the luxury class no longer is rated against the hot cars, and Cadillac's performance is normal for its class.

Along with its better performance and higher gearing, the Cadillac turned in what is usually considered normal gasoline economy for its class. The 8-to-12-mpg average, however, is considerably lower than most standard-size sedans.

Cadillac's most obvious quality is a good ride with reasonably good stability at high speeds. Stability is considerably improved over last year, when the car had a tendency to wallow at highway speeds.

The better stability can probably be traced to a redesigned front suspension. Last year the wishbone-type arm was held rigid at three points — steering knuckle



and two places on the frame. This year Cadillac engineers have connected the lower control arm at one place on the frame and on the steering knuckle. A diagonal tie strut is used to control fore-and-aft deflection of the front wheels.

Besides helping improve the stability and ride, the new suspension design made it possible to move the front brake drums into the air stream. By adding fins onto the extended drums, greater cooling results. Since the wheel cylinders are larger, brakes are more efficient, with less fade.

Each year Cadillac adds some kind of additional sound insulation. This year there is a new rubber support for the intermediate propeller shaft bearing and all the joints in the suspension are made through rubber bushings, which act as road noise isolators. So complete is the insulation, in fact, that engineers had to add a copper strap from the suspension to the frame to keep tire static out of the radio.

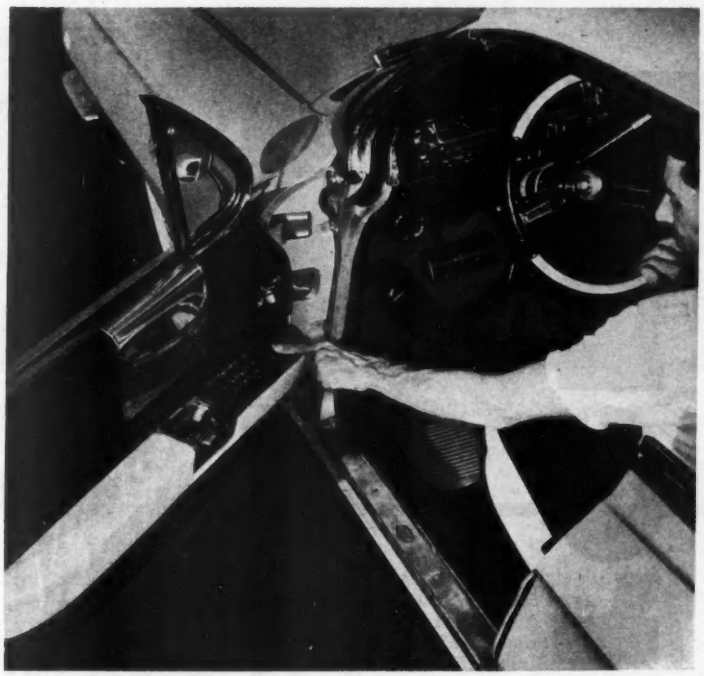
All this insulation actually made little difference inside the passenger compartment. In last year's test, no mechanical noises were detected, and this year the same proved true. Inside, only the loudest of outside noises ever came through when the windows were rolled up.

Power steering is standard equipment and has practically no feel of the road. At any speed all driving is done visually, with no road shocks to tell the driver what is happening. There has been a change in the power unit so that even less effort is now required. Another change in the steering geometry (the steering circle is three feet less) makes the car more maneuverable. This has been fairly effective, and getting into and out of tight parking spaces is noticeably easier.

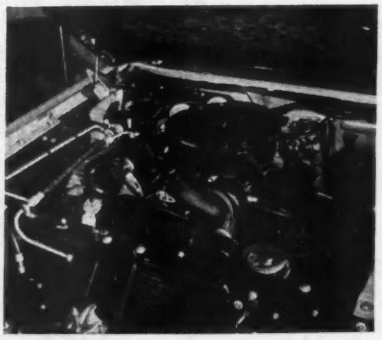
Cadillac has a new body this year, but the styling is so close to last year's that most of the design benefits could easily be overlooked. At the front door the dogleg has been eliminated, greatly improving entry and exit. But a more important change is in the rear door, which is six inches wider and opens 7½ inches farther. This makes getting into and out of the back seat exceptionally good, in fact, probably the easiest of any domestic four-door sedan. This is a major quality in a luxury sedan, where the back seat is often as important as the front.

Cadillac's back seat is one of Detroit's roomiest, with more than generous legroom. In front the dimensions are only average, although ample. The upholstery padding was firmer than any other car in Cadillac's class, although this in no way interfered with comfort. In fact, for most drivers on long trips the firmer padding was preferred. The upholstery material was only average for the luxury class (there are 112 others available, ranging up to the most expensive fabrics), but it was durable, attractive and well fitted.

Along with its conservative interior, Cadillac has a conservative dash panel and driver controls — although there are more controls than are found on the average sedan. However, the layout is extraordinarily practical. Without moving his left arm from the armrest the driver can open the door, lock or unlock all doors, open or close any window or either front vent, adjust the front seat six ways or adjust the outside rear view mirror. Within easy reach of his left hand the driver can also set the Cruise Control to a desired speed and turn on the lights, air conditioning or windshield wiper. On the right are only three controls ordinarily used when driving: radio, heater and ignition. Once the radio is on and the volume adjusted, stations can be changed with a foot control. This means that the right hand is seldom necessary for any adjustments. This is an excellent arrangement; since most people are right-handed, it is only natural to assume that driving would be safer if the left hand is removed from the wheel.



Driver control buttons are arranged in practical and extremely convenient layout. Nearly all controls can be operated with left hand, and many of these without moving arm from the armrest.



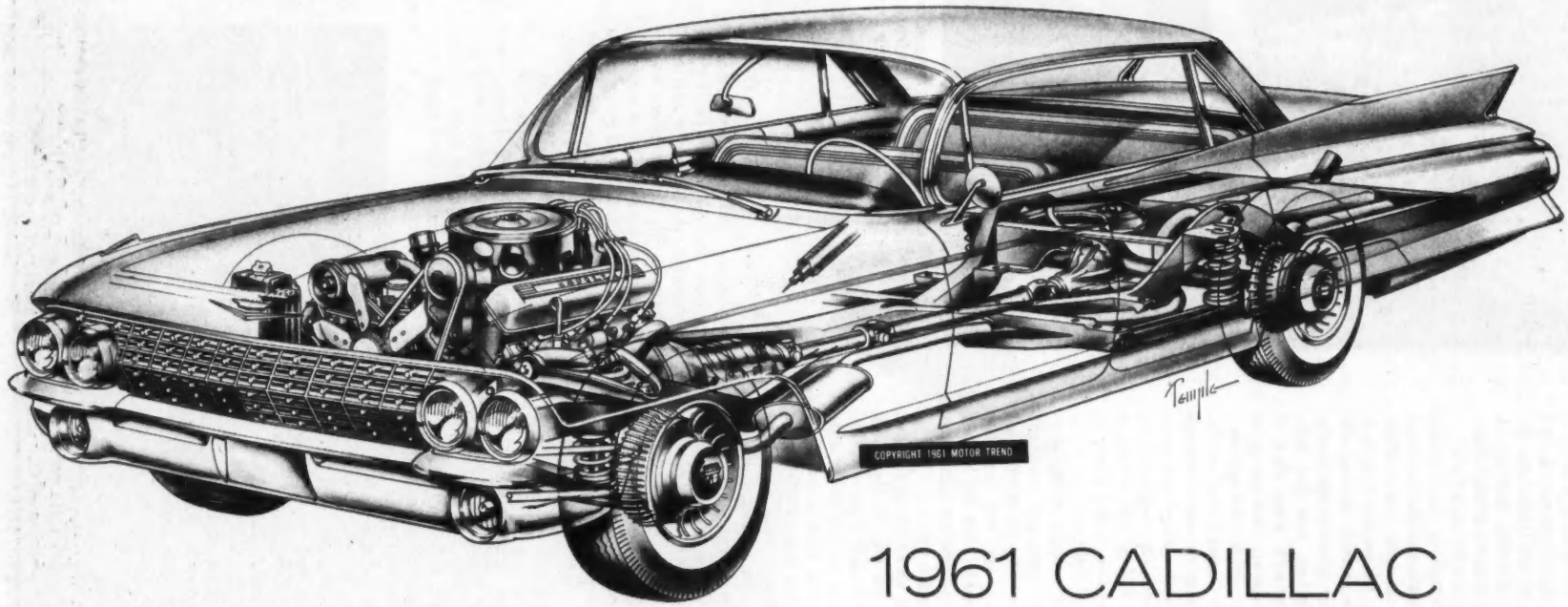
Cadillac's engine compartment is exceptionally crowded. Notice components placed in front of radiator.

The glove compartment is new this year and has been designed like a bin. This, Cadillac claims, makes it virtually impossible for anything to roll out. But since it is so small, it is practically impossible to get enough in it to worry about the contents spilling out.

Another new interior feature is the steering wheel, which is 16 inches in diameter, one inch smaller than last year. The smaller wheel is possible, no doubt, because of the more effective power steering, but is also a psychological factor in making the interior seem larger.

One accessory, the power deck lid lock, is a switch inside the glove compartment. It works slightly different from other similar devices, in that it unlocks the trunk and only raises the deck lid slightly. Even though the trunk space is rated high in cubic capacity, it is not as efficiently laid out as it could be — and lacks the deep well arangement of many other GM standard-size sedans. /MT

motor trend



1961 CADILLAC

test car

TEST CAR: Cadillac Sedan de Ville
BODY TYPE: 4-door hardtop
BASE PRICE: $5498

TEST CAR: Imperial Crown
BODY TYPE: 4-door hardtop
BASE PRICE: $5647

TEST CAR: Lincoln Continental
BODY TYPE: 4-door sedan
BASE PRICE: $6067

maneuverability factors

OVERALL LENGTH: 222 inches
OVERALL WIDTH: 79.8 inches
OVERALL HEIGHT: 56.3 inches
WHEELBASE: 129.5 inches
TREAD, FRONT/REAR: 61 and 61 inches
SHIPPING WEIGHT: 4710 lbs.
STEERING: 3.7 turns lock-to-lock
TURNING CIRCLE: 43 feet curb-to-curb
GROUND CLEARANCE: 5.3 inches

OVERALL LENGTH: 227.1 inches
OVERALL WIDTH: 81.7 inches
OVERALL HEIGHT: 56.7 inches
WHEELBASE: 129 inches
TREAD, FRONT/REAR: 61.8 and 62.2 inches
SHIPPING WEIGHT: 4855 lbs.
STEERING: 3.5 turns lock-to-lock
TURNING CIRCLE: 48.2 feet curb-to-curb
GROUND CLEARANCE: 5.6 inches

OVERALL LENGTH: 212.4 inches
OVERALL WIDTH: 78.6 inches
OVERALL HEIGHT: 53.5 inches
WHEELBASE: 123 inches
TREAD, FRONT/REAR: 62.1 and 61 inches
SHIPPING WEIGHT: 4771 lbs.
STEERING: 3.7 turns lock-to-lock
TURNING CIRCLE: 46.7 feet curb-to-curb
GROUND CLEARANCE: 5.5 inches

interior room

SEATING CAPACITY: Six
FRONT SEAT
HEADROOM: 34.3 inches
HIPROOM: 59.7 inches
LEGROOM: 45.6 inches
TRUNK CAPACITY: 17 cubic feet

SEATING CAPACITY: Six
FRONT SEAT
HEADROOM: 34.4 inches
HIPROOM: 61 inches
LEGROOM: 46.9 inches
TRUNK CAPACITY: 17.8 cubic feet

SEATING CAPACITY: Six
FRONT SEAT
HEADROOM: 38.6 inches
HIPROOM: 59.7 inches
LEGROOM: 44.0 inches
TRUNK CAPACITY: 10.5 cubic feet

engine & drive train

TYPE: Ohv V-8
DISPLACEMENT: 390 cubic inches
BORE & STROKE: 4.0 x 3.8
COMPRESSION RATIO: 10.25-to-1
CARBURETION: Single 4-barrel
HORSEPOWER: 325 @ 4800 rpm
TORQUE: 430 @ 3100 rpm
TRANSMISSION: Automatic
REAR AXLE RATIO: 3.21

TYPE: Ohv V-8
DISPLACEMENT: 413 cubic inches
BORE & STROKE: 4.18 x 3.75
COMPRESSION RATIO: 10.1-to-1
CARBURETION: Single 4-barrel
HORSEPOWER: 350 @ 4600 rpm
TORQUE: 470 @ 2800 rpm
TRANSMISSION: Automatic
REAR AXLE RATIO: 2.93

TYPE: Ohv V-8
DISPLACEMENT: 430 cubic inches
BORE & STROKE: 4.3 x 3.7
COMPRESSION RATIO: 10-to-1
CARBURETION: Single 2-barrel
HORSEPOWER: 300 @ 4100 rpm
TORQUE: 465 @ 2000 rpm
TRANSMISSION: Automatic
REAR AXLE RATIO: 2.89

performance

GAS MILEAGE: 8 to 12 miles per gallon
ACCELERATION: 0-30 mph in 3.8 seconds, 0-45 mph in 6.7 seconds and 0-60 mph in 10.4 seconds
SPEEDOMETER ERROR: Indicated 30, 45 and 60 mph are actual 29.5, 44 and 58.5 mph respectively
ODOMETER ERROR: Indicated 100 miles is actual 96.5 miles
WEIGHT-POWER RATIO: 14.5 lbs. per horsepower
HORSEPOWER PER CUBIC INCH: .834

GAS MILEAGE: 8 to 12 miles per gallon
ACCELERATION: 0-30 mph in 3.7 seconds, 0-45 mph in 6.7 seconds and 0-60 mph in 10.5 seconds
SPEEDOMETER ERROR: Indicated 30, 45 and 60 mph are actual 30.5, 44.5 and 58 mph respectively
ODOMETER ERROR: Indicated 100 miles is actual 93 miles
WEIGHT-POWER RATIO: 13.9 lbs per horsepower
HORSEPOWER PER CUBIC INCH: .847

GAS MILEAGE: 10 to 14 miles per gallon
ACCELERATION: 0-30 mph in 4.7 seconds, 0-45 mph in 8 seconds and 0-60 mph in 12.9 seconds
SPEEDOMETER ERROR: Indicated 30, 45 and 60 mph are actual 30, 45 and 60 mph respectively
ODOMETER ERROR: Indicated 100 miles is actual 97 miles
WEIGHT-POWER RATIO: 14.3 lbs. per horsepower
HORSEPOWER PER CUBIC INCH: .698

THE 1961 SUPER-STOCK ENGINES

BY DEAN PARKER

THERE'S A BIG DIFFERENCE between Detroit's concept of a "power pack" engine and a "high-performance" engine. Many car buyers — and car salesmen as well — don't understand this. Consequently, the new-car buyer often ends up with less performance than he *wants*, and can conveniently *use*. For a surprisingly few dollars more a whole new world of performance is open.

Essentially a power pack engine represents just the "first stage of tuning" above the standard engine for the car model in question. It may be identical to the standard engine except for a bigger carburetor (maybe a four-barrel), possibly a bit higher compression and dual exhausts. In some cases, as on the Falcon and Lancer, the power pack engine may have more piston displacement. In a few cases an entirely different engine is available; Chevrolet has a power pack on the 283-cubic-inch block (230 hp) or up to 250 hp with the standard 348-cubic-inch block, which is a different engine entirely. But the common denominator in all these cases is that the "power pack" version is a relatively simple, mild step above the standard powerplant.

The "high-performance" engine option is a more radical step. It may or may not be the same basic engine, but the changes are more severe. It will probably have a special camshaft, and maybe mechanical lifters, in addition to added carburetion, compression and dual exhaust. It may have a modified ignition system, maybe special exhaust manifolds. In some cases a buyer can only get this engine with a stick-shift transmission — and in at least one case the buyer can only get it with a heavy-duty automatic. Frequently the engine "package" will come only with heavy-duty chassis parts (like stiffer springs and shocks, bigger brakes, etc.) to make the added performance a little safer on the road.

If there's any common denominator to distinguish high-performance engine options from the power packs, it could very well be that car salesmen almost never "push" the high-performance option. There's a good chance they don't even *know* such an engine is available. Many dealerships chuck the factory bulletins on these engines in the wastebasket, as a matter of policy; they feel the sales potential is too low and warranty headaches too high. They wouldn't sell one if a buyer wanted it. Others will order one grudgingly, but without enthusiasm or any background knowledge of the performance of the equipment. A few sharp dealers at least try to keep up on the special equipment, and sell it when a buyer really *wants* performance. And then there are dealers like Roy Pontiac in Royal Oak, Michigan (December 1960 issue of MOTOR TREND), who actually *specialize* in optional high-performance combinations. They stock special parts on their shelves, even complete cars with a wide variety of engine, transmission and gear options. They have salesmen who can recommend optimum option combinations, parts men who can get the parts and mechanics who know how to set up the stuff.

So the purpose of this article is merely to review the *possibilities* in true high-performance engines in the various makes of 1961 cars. (Not all makes offer them.) It is up to the buyer whether the potential benefits are worth looking for a dealer who will cooperate in selecting the part options and order the package.

FOR THE LAST FEW YEARS Chevrolet has been using the big 348-cubic-inch block exclusively for its high-performance engines in the passenger cars. Last year a special 305-hp version was offered only with a heavy-duty Powerglide transmission, for police and private buyers who wanted maximum possible performance with an automatic. This same engine rating is available this year; but the hot cam and solid lifters are gone, and I don't consider this a true "high-performance" engine any more.

So we go up to the 340- and 350-hp options. These are available only with the three-speed heavy-duty stick shift and four-speed floor-shift transmissions. The engines differ only in carburetion. Both feature 11.25-to-1 compression ratio, special cylinder heads with big ports and 2.06-inch intake valves (standard is 1.94), special long-duration cam with solid lifters, "header"-type exhaust manifolds, aluminum bearings and non-vacuum distributor with special advance curve. Both engines use new aluminum intake manifolds with huge ports. One uses a big Carter four-barrel carburetor to get a rating of 340 hp at 5800 rpm; the other uses three two-throat Rochesters for 350 horses at 6,000. Optional cost of the 340-hp four-barrel job over the standard 170-hp Chevrolet small V-8 engine is only $237. The three-carb job runs $259.

Sometime after the first of the year Chevrolet announced a new *super*-performance engine, based on the above block, designed primarily for track racing and dragging. It will be available for assembly-line installation in street machines early in the spring. Essentially it will be a "bored" and "stroked" version of the above 340-hp engine, with three-sixteenths inch larger bore and quarter-inch longer stroke giving 409 cubic inches! It will also feature a longer-duration cam, forged pistons, and stiffer valve springs and pushrods (using solid lifters). It will be available *only* with the big Carter four-barrel carb at first; triple-carb versions might be released for the drag strips next summer, but this is not known yet. Chevy will advertise the four-barrel version at 360 hp at 5800 rpm. No prices have been set yet.

I SUPPOSE ALL the optional Corvette engines could be considered "high-performance" when they are hooked to a 2,950-pound fiberglass-body sportster. But in our frame of reference here only the top fuel injection rating of 315 hp at 6200 rpm would rate the honor.

This combination has 11-to-1 compression ratio, special heads with 1.94-inch intake valves (standard is 1.72), the competition "Duntov" cam with lightweight valves, solid lifters and heavy-duty springs, aluminum bearings, modified non-vacuum ignition — and topped off by the beautiful Rochester constant-flow fuel injection system. For maximum breathing and throttle response. The combo is completely at home on the road race course, drag strip or street. Optional cost over the standard 230-hp engine (both 283 cubic inches) is $484, and this engine is available only with the floor-shift three- or four-speed transmission.

CHRYSLER CORPORATION is going wild on high-performance engine options in the Dodge-Plymouth lines for 1961. All 1960 options are back — plus a new line of engines based on the big 313-cubic-inch Chrysler block! Actually they are all the same basic Chrysler "B" engine, and most of the parts are interchangeable; only the bore and stroke differ. The top 1960 engine will now be the "junior" package, with 383 cubic inches. The all-out man can order the 413 block. But note: Both lines of engines will use the present 383 heads, with 2.08-inch intake valves and

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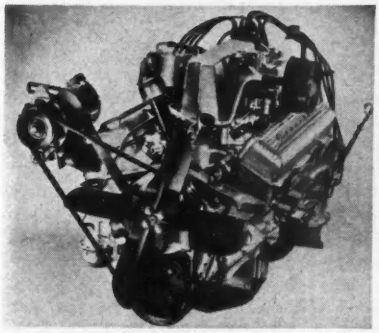

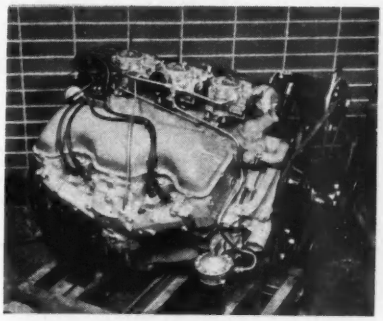

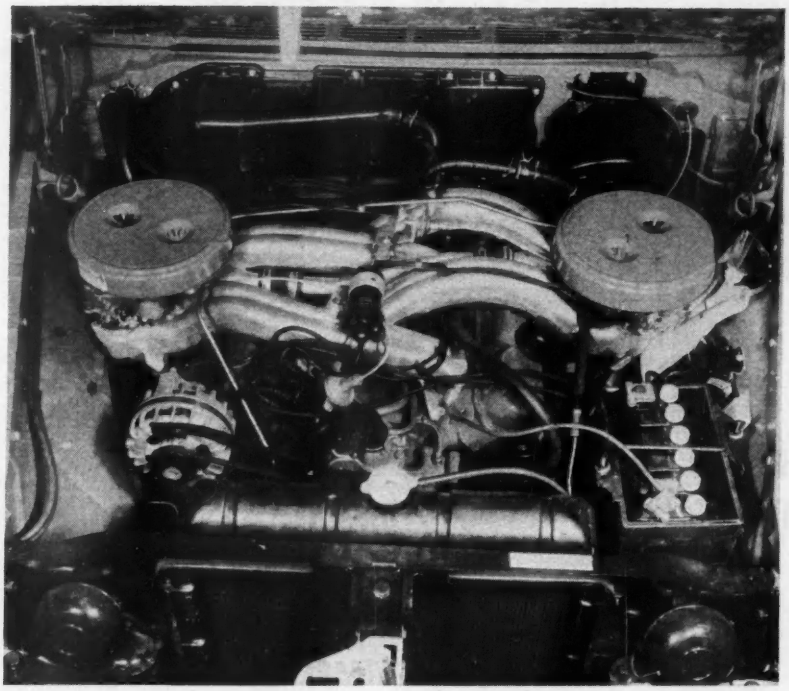

Three examples of super-stock engines are shown above. At upper left is the famous 315-hp Corvette V-8 with fuel injection; lower left, the 350-hp Chevrolet option, with stock exhaust manifolding; at right, the 330-hp ram induction V-8 that drives either Plymouth or Dodge Darts and, in similar form, also equips the Chrysler and 300-G.

MAJOR SPECIFICATIONS FOR 1961 HIGH-PERFORMANCE ENGINES

Engine	Cubic Inches	Compression Ratio	Horsepower At RPM	Torque At RPM	Carburetion	Lifters*	Special Head	Header Exhaust	Option Price
Chevrolet	348	11.25	340 @ 5800	358 @ 3600	1 4-bbl	S	X	X	$237
	348	11.25	350 @ 6000	362 @ 3600	3 2-bbl	S	X	X	$259
	409	11.25	360 @ 5800	409 @ 3600	1 4-bbl	S	X	X	NA
Corvette 315 fuel injection	283	11.00	315 @ 6200	295 @ 5000	f. i.	S	X		$484
Dodge-Plymouth	383	10.00	325 @ 4600	425 @ 2800	1 4-bbl	H			$ 81
	383	10.00	330 @ 5200	425 @ 3600	2 4-bbl	H			NA
Long ram	383	10.00	330 @ 4800	460 @ 2800	2 4-bbl	H			$313
Short ram	383	10.00	340 @ 5000	440 @ 2800	2 4-bbl	H			NA
	413	10.00	350 @ 4600	470 @ 2800	1 4-bbl	H			NA
	413	10.00	375 @ 5200	440 @ 3600	2 4-bbl	H			NA
Short ram	413	10.00	375 @ 5000	465 @ 2800	2 4-bbl	H			NA
Ford-Mercury Police Special	390	9.60	330 @ 5000	427 @ 3200	1 4-bbl	H		X	$ 89
High Performance	390	10.60	375 @ 6000	430 @ 3400	1 4-bbl	S		X	$209
Lancer-Valiant Hyper-Pak	170	8.20	148 @ 5200	153 @ 4200	1 4-bbl	S		X	$463
Lancer Hyper-Pak (big block)	225	8.20	196 @ 5200	212 @ 4200	1 4-bbl	S		X	$463
Oldsmobile High-Performance	394	10.25	NA	NA	1 4-bbl	S		X	NA
Pontiac Trophy 425A	389	10.75	333 @ 4800	425 @ 2800	1 4-bbl	H		X	$134
425A Tri-Power	389	10.75	348 @ 4800	430 @ 3200	3 2-bbl	H		X	$168
High-Performance	389	10.75	363 @ 5600	NA	3 2-bbl	S	X	X	NA

* — S for solid lifters, H represents hydraulic
NA — Information not available

X — Indicates that special head and header exhaust are part of the equipment

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'61 SUPER-STOCK ENGINES

continued from page 84

1.60 exhausts. The heads used on the 413 block in Chrysler cars have 1.74-inch exhausts; these heads may be installed later in the year if competition demands it. All heads will give 10-to-1 compression ratio.

The major options are based on carburetion. There is a much bigger choice than last year. A single large four-barrel carb will be available on both blocks. But the buyer will now have a choice of a conventional *dual* four-barrel manifold with "log"-type manifolding — or he can step up to the exotic Sonoramic ram manifolds with two four-barrel carbs. And there's more yet: Chrysler will have *two* types of ram manifolds available for 1961. A setup with the original long passages to give a torque boost at 2800 rpm, and a new one with short passages to "tune" at 4400 for maximum *horsepower*. Each has its place in the high-performance field. Power and torque ratings for these various combinations are given in the accompanying table.

It should also be mentioned that two camshafts will be used with these engines, both used last year. A cam with 268-degree duration will be installed on engines with single and conventional dual four-barrel carbs, and on engines with the long-ram manifolds. The "short-ram" engines will use a 284-degree cam. Both cams use hydraulic lifters (though a solid-lifter 268-degree kit can be bought through MoPar for later installation). *No* special "header"-type exhaust manifolds are yet available for these engines. All options, parts and prices will be identical between Dodge and Plymouth. The only price that has been released yet is $313 for the long-ram 383-cubic-inch engine (330 hp). This is the same engine as used last year.

FORD HAS MADE a lot of improvements on last year's 360-hp high-performance engine for the new 375-hp job. Most important change is the increase in bore and stroke to bring displacement up from 352 to 390 cubic inches. The new 375 is a special engine all the way through. The cylinder block casting is modified slightly to beef up the bulkheads, and a modified high-output oil pump is used. Pistons and rods are hand selected for optimum fits and closer balance, piston and bearing clearances are increased and heavy-duty bearing shells are used. A long-duration cam with solid lifters, adjustable rockers and stiff valve springs with dampers are used, with a potential rev range to 6500 rpm. On top we find modified combustion chambers to give a compression ratio of 10.6-to-1, special big-port aluminum intake manifold to mount a huge Holley four-barrel carb, a centrifugal distributor with special spark advance curve, and beautiful cast "header"-type exhaust mani-

continued on page 88

This Tri-Power Pontiac packs one horse for every 10½ pounds

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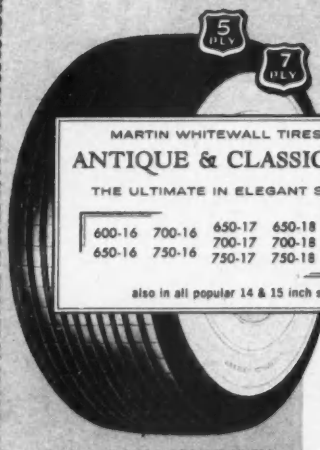

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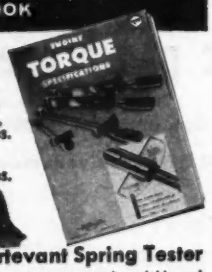

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'61 SUPER-STOCK ENGINES

continued from page 86

folds. Ford rates the 375-hp at 6,000 rpm. Optional cost of the package: $209, available only with heavy-duty three-speed synchromesh. Incidentally, this engine option has recently been withdrawn from the Mercury line.

A "Police Special" version of the high-performance engine is available for $89 in both Fords and Mercurys; but the word is that this engine can only be sold to a party who is affiliated with an accredited law enforcement agency. The version is said to be the same as the 375-hp option except for using a 9.6-to-1 compression and the standard camshaft and hydraulic lifters. This brings the rating down to 330 hp at 5,000 rpm.

THE HIGH-PERFORMANCE engine option is a little different in the case of the Lancer and Valiant compacts because one can't order it on a car coming off the assembly line. It has to be ordered as the "Hyper-Pak" kit from MoPar (Chrysler parts division) and the parts installed by a dealer on the new car after it comes through. He supposedly will give credit on the parts that are replaced. In any case it will be a very expensive proposition. The Hyper-Pak kit lists at $463 — and the cost of installation, including a tear-down of the engine and clutch, would be added on top of that. The only compensation is that these compacts are extremely high-performance with the kit. A 1960 Valiant equipped this way won the C/Stock class at the NHRA Nationals in Detroit last fall.

The Hyper-Pak kit can be installed on either the 170- or 225-cubic-inch versions of Chrysler's new slant Six engine (only the 170 is available on Valiant). The factory power rating when used on the 170-inch block is 148 hp at 5200 rpm; when used on the 225 they credit it with 196 hp at 5200. The kit consists of a special ram intake manifold to mount a big Carter AFB four-barrel carburetor, the carb itself, air cleaner, a manual choke cable hook-up, special streamlined dual exhaust manifolds with matching tailpipe and muffler assembly (single muffler and tailpipe), a hot cam with special pushrods and stiff valve springs, and a heavy-duty clutch assembly to replace the stock clutch. The rpm potential with this is at least 6500. It is not recommended that the kit be used with automatic transmission.

OLDSMOBILE IS MOVING quietly back into the performance field after an absence since the "J-2" days of 1957. It is putting quite a lot of effort into the project, but not making much noise about it — and apparently the effort is aimed primarily at the professional stock car racing game. As

continued on page 90

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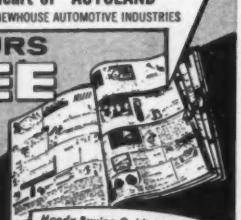

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'61 SUPER-STOCK ENGINES

continued from page 88

this is written few details are available, no performance figures, no prices, and there is no word as to what equipment can be ordered on 1961 models coming off the assembly line. It's possible that 90 per cent of this new stuff will have to be bought over the counter and installed by the car owner.

Anyway here's what we know: The engine will be based on the current 394-cubic-inch production block. The package will include flat-top pistons for 10.25-to-1 compression ratio, one big four-barrel carb and corresponding manifold, special long-duration cam with solid lifters, adjustable pushrods and high-tension valve springs, heavy-duty rods and bearings, big clutch, streamline header-type exhaust manifolds, heavy-duty crank balancer, generator pulley and a clutch fan drive to stop the fan rotation at high speeds.

In addition there will be a complete line of heavy-duty chassis equipment and rear-end gears running from 3.64- to 6.14-to-1 ratio. Special gears in this range will also be released for the Olds F-85 axle, but the power kit will not be announced until next spring.

PONTIAC HAS A LIST of engine options as long as your arm, but only two factory-installed combinations will interest us here. This is the Trophy 425A option. Both engines are identical except for carburetion; one uses three two-throat Rochesters for a rating of 348 hp at 4800 rpm, while the other uses one big four-barrel to get 333 hp at the same speed. Optional prices are $168 and $134 respectively. Other changes include 10.75-to-1 compression ratio, long-duration cam for use with special hydraulic lifters and dual valve springs that permit shift points up to 5800 rpm, loose piston fits, modified distributor, and unusual "360-degree" exhaust manifolds with dual outlets for each bank, feeding to dual exhaust lines and mufflers. Both engines can be ordered with any transmission option — the heavy-duty three-speed synchromesh four-speed floor-shift, or either the new three-speed Hydramatic or the previous four-speed design.

Pontiac has a hotter engine option than the above, rated 363 hp at 5600 rpm; but it can't be ordered off the assembly line. One has to buy the parts individually and assemble it. The major differences, as compared with the above Trophy 425A, would be special head castings with 2.0-inch intake valves (standard is 1.88) and high-lift rocker arms, forged pistons and a hotter cam with solid lifters that extends the usable rpm range past 6100. The total cost of parts alone to put this engine together would run close to $1200. /MT

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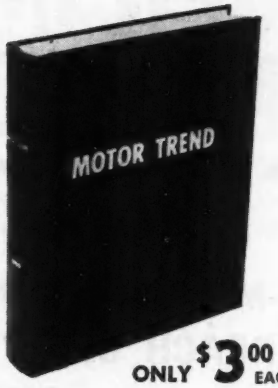

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MOTOR TREND'S 1961 CAR SPECIFICATIONS

All figures listed are for **four-door sedans.** If that body type **is not offered,** data for four-door hardtops **is listed.** Obvious **exceptions** are such cars as the **Thunderbird** and **Corvette.** All specifications are **the latest** as announced by the manufacturers. **Additions** and **corrections** will be made **each month** in order that our **readers may have** the most **complete** and **authoritative** figures on Detroit's **new** cars. (Entries marked "NA" contain information not available at the time of publication.)

	LENGTH	WIDTH	HEIGHT	WHEELBASE	TREAD		TIRE SIZE	MINIMUM ROAD CLEARANCE	TURNING CIRCLE	SHIPPING WEIGHT	FRONT SEAT			REAR SEAT		
					FRONT	REAR					HEAD ROOM	LEG ROOM	HIP ROOM	HEAD ROOM	LEG ROOM	HIP ROOM
BUICK Le Sabre, Invicta	213.2	78.0	56.3	123.0	62.0	61.0	7.60 x 15	5.5	44.0	4129	34.5	44.8	63.3	34.1	41.4	63.2
Electra	219.2	78.0	57.0	126.0	62.0	61.0	8.00 x 15	5.7	45.7	4333	34.3	44.8	63.6	34.5	44.0	63.2
BUICK Special	188.4	71.3	52.8	112.1	56.0	56.0	6.50 x 13	4.9	38.1	2610	33.9	44.6	58.6	33.7	37.8	58.2
CADILLAC 60	222.0	79.8	56.6	129.5	61.0	61.0	8.00 x 15	5.1	43.0	4770	34.4	46.0	63.3	34.1	44.5	63.1
62	222.0	79.8	56.3	129.5	61.0	61.0	8.00 x 15	5.1	43.0	4680	34.4	46.0	63.3	34.1	44.5	63.1
75	242.3	80.6	59.1	149.8	61.0	61.0	8.20 x 15	6.2	48.0	5390	36.3	44.2	65.5	34.8	NA	60.1
CHEVROLET	209.3	78.4	55.5	119.0	60.3	59.3	7.50 x 14	6.0	40.8	3500	34.5	45.0	63.5	34.0	42.0	63.5
CHEVROLET CORVAIR	180.0	67.0	51.5	108.0	54.0	54.0	6.50 x 13	6.0	39.0	2355	33.5	44.0	58.5	33.5	36.5	58.0
CHEVROLET CORVETTE	176.7	70.4	52.2	102.0	57.0	59.0	6.70 x 15	6.7	37.0	2905	37.0	46.4	59.6	- - -	- - -	- - -
CHRYSLER Newport, Windsor	215.6	79.4	54.9	122.0	61.0	59.7	8.00 x 14	5.2	44.0	NA	37.6	45.1	63.8	38.1	42.4	62.8
New Yorker	219.8	79.4	55.6	126.0	61.2	60.0	8.50 x 14	5.7	46.6	NA	37.6	45.3	63.8	38.1	42.4	62.8
300-G	219.8	79.4	55.1	126.0	61.2	60.0	8.00 x 15	5.7	46 6	NA	38.1	45.6	- - -	38.1	35.4	- - -
COMET	194.8	70.4	54.5	114.0	55.0	54.5	6.00 x 13	5.9	39.9	2440	38.6	43.9	57.0	37.6	40.8	56.7
DODGE	212.5	78.7	54.9	122.0	61.5	60.2	8.00 x 14	5.3	43.9	3700	37.6	45.1	63.8	38.1	42.4	62.8
DODGE DART	209.4	78.7	54.8	118.0	61.5	60.2	7.50 x 14	5.1	42.3	3510	37.6	45.1	63.8	38.0	42.1	62.9
DODGE LANCER	188.8	72.3	53.3	106.5	56.0	55.5	6.50 x 13	5.4	37.9	2595	37.9	42.8	56.8	37.4	39.7	56.9
FORD	209.9	79.9	55.0	119.0	61.0	60.0	7.50 x 14	5.5	41.0	3683	38.2	45.3	62.1	37.6	43.3	63.5
FORD FALCON	181.2	70.3	54.5	109.5	55.0	54.5	6.00 x 13	5.9	38.3	2289	38.8	44.6	57.1	37.3	39.4	57.0
FORD THUNDERBIRD	205.0	75.9	52.5	113.0	61.0	60.0	8.00 x 14	5.2	40.2	3958	37.5	43.9	59.0	37.6	40.4	52.3
IMPERIAL	227.3	81.7	56.7	129.0	61.8	62.2	8.20 x 15	5.6	48.2	NA	38.9	46.9	61.0	38.3	42.9	60.2
LINCOLN CONTINENTAL	212.4	78.6	53.5	123.0	62.1	61.0	9.00 x 14	5.5	46.7	4771	38.6	44.0	59.7	38.2	40.0	60.7
MERCURY	214.6	79.9	55.0	120.0	61.0	60.0	7.50 x 14	5.7	41.6	3762	38.2	45.3	62.1	37.6	43.3	63.5
OLDS Dynamic 88, Super 88	212.0	77.2	55.8	123.0	61.0	61.0	8.00 x 14	5.6	43.0	4024	34.5	44.4	63.3	34.4	41.7	63.3
98	218.0	77.2	56.6	126.0	61.0	61.0	8.50 x 14	5.8	43.8	4208	35.2	44.1	63.6	34.4	41.7	63.2
OLDSMOBILE F-85	188.2	71.6	52.6	112.0	56.0	56 0	6.50 x 13	4.9	37.0	2566	34.0	44.0	58.6	33.9	37.8	58.2
PLYMOUTH	209.5	80.0	54.6	118.0	60.9	59.6	7.00 x 14	4.7	42.2	NA	33.3	54.3	63.8	33.5	42.1	62.9
PLYMOUTH VALIANT	183.7	70.4	53.3	106.5	56.0	55.5	6.50 x 13	5.4	37.1	2695	33.6	42.8	56.8	33.1	39.8	56.9
PONTIAC Catalina, Ventura	210.0	78.2	55.9	119.0	62.5	62.5	8.00 x 14	6.0	46.0	3795	38.8	45.1	63.2	37.9	40.6	63.2
Star Chief, Bonneville	217.0	78.2	55.9	123.0	62.5	62.5	8.00 x 14	6.0	46.6	3895	38.8	44.9	63.2	37.9	40.9	63.0
PONTIAC TEMPEST	189.3	72.2	53.5	112.0	56.8	56 8	6.00 x 15	6.0	41.0	2800	38.3	44.1	58.6	37.1	37.8	58.2
RAMBLER AMBASSADOR	199.0	73.6	56.9	117.0	57.8	59.1	8.00 x 14	5.5	39.8	3430	36.0	43.0	59.8	34.5	40.0	60.1
RAMBLER AMERICAN	173.0	70.0	56.2	100.0	54.6	55.0	6.00 x 15	5.3	36.0	2544	35.0	44.0	58.0	33.0	37.5	45.3
Classic V-8	189.9	72.4	57.1	108.0	58.8	59.1	7.50 x 14	5.4	37.6	3255	36.0	43.0	59.8	34.5	40.0	60.1
Classic 6	189.9	72.4	57.3	108.0	57.8	58.0	6.50 x 15	5.6	37.3	2933	36.0	43.0	59.8	34.5	40.0	60.1
STUDEBAKER HAWK	204.0	71.4	55.5	120.5	57.4	56.6	6.70 x 15	6.8	41.0	3207	34.5	44.0	59.5	33.7	37.0	58.0
STUDEBAKER LARK	175.0	71.4	56.5	108.5	57.4	56.6	6.50 x 15	6.1	37.5	2966	35.2	43.5	59.5	34.7	40.0	59.0
LARK Cruiser	179.0	71.4	56.5	113.0	57.4	56.6	6.50 x 15	6.1	39.0	3000	35.2	43.5	59.5	34.7	44.0	59.5

1961 BODY & CHASSIS DIMENSIONS

BIG CARS

	TYPE	HORSEPOWER	TORQUE	CUBIC INCHES	BORE AND STROKE	COMPRESSION	CARBURETION	AXLE RATIOS: AUTOMATIC	AXLE RATIOS: MANUAL	AXLE RATIOS: OPTIONAL
BUICK Le Sabre (standard)	V-8	250 @ 4400	384 @ 2400	364	4.13 x 3.40	10.25	1 2-bbl.	3.07	---	---
Le Sabre (optional)	V-8	235 @ 4400	375 @ 2400	364	4.13 x 3.40	9.0	1 2-bbl.	3.07	---	---
Le Sabre (optional)	V-8	300 @ 4400	405 @ 2800	364	4.13 x 3.40	10.25	1 4-bbl.	3.23	---	---
Invicta, Electra, Electra 225	V-8	325 @ 4400	445 @ 2800	401	4.19 x 3.64	10.25	1 4-bbl.	3.23	---	---
CADILLAC 60 & 62	V-8	325 @ 4800	430 @ 3100	390	4.00 x 3.875	10.5	1 4-bbl.	2.94	---	3.21
75	V-8	325 @ 4800	430 @ 3100	390	4.00 x 3.875	10.5	1 4-bbl.	3.36	---	3.77
CHEVROLET Six	6	135 @ 4000	217 @ 2000	235	3.56 x 3.94	8.25	1 1-bbl.	3.36	3.36	3.55, 3.70
170	V-8	170 @ 4200	275 @ 2200	283	3.87 x 3.00	8.5	1 2-bbl.	3.08, 3.36	3.36	3.70
230	V-8	230 @ 4800	300 @ 3000	283	3.87 x 3.00	9.5	1 4-bbl.	3.36	3.36	3.70
250	V-8	250 @ 4400	355 @ 2800	348	4.12 x 3.25	9.5	1 4-bbl.	3.08	3.36	3.08
280	V-8	280 @ 4800	355 @ 3200	348	4.12 x 3.25	9.5	3 2-bbl.	3.08	3.36	---
305	V-8	305 @ 5200	355 @ 3400	348	4.12 x 3.25	9.5	1 4-bbl.	3.55	3.36	---
340	V-8	340 @ 5800	362 @ 3600	348	4.12 x 3.25	11.25	1 4-bbl.	---	3.70	---
350	V-8	350 @ 6000	364 @ 3600	348	4.12 x 3.25	11.25	3 2-bbl.	---	3.70	---
CHEVROLET CORVETTE 230	V-8	230 @ 4800	300 @ 3000	283	3.87 x 3.00	9.5	1 4-bbl.	3.55	3.36	3.70, 4.11, 4.56
245	V-8	245 @ 5000	300 @ 3800	283	3.87 x 3.00	9.5	2 4-bbl.	3.55	3.36	3.70, 4.11, 4.56
270	V-8	270 @ 6000	285 @ 4200	283	3.87 x 3.00	9.5	2 4-bbl.	---	3.36	3.70, 4.11, 4.56
275	V-8	275 @ 5200	305 @ 4400	283	3.87 x 3.00	11.0	F.I.	---	3.36	3.70, 4.11, 4.56
315	V-8	315 @ 6200	295 @ 5100	283	3.87 x 3.00	11.0	F.I.	---	3.36	3.70, 4.11, 4.56
CHRYSLER Newport	V-8	265 @ 4400	380 @ 2400	361	4.12 x 3.38	9.0	1 2-bbl.	2.93	3.58	---
Windsor	V-8	305 @ 4600	410 @ 2400	383	4.25 x 3.38	10.0	1 2-bbl.	2.93	3.58	---
New Yorker	V-8	350 @ 4600	470 @ 2800	413	4.18 x 3.75	10.1	1 4-bbl.	2.93	---	---
300-G	V-8	375 @ 5000	495 @ 2800	413	4.18 x 3.75	10.1	2 4-bbl.	3.23	3.23	---
DODGE Polara V-8	V-8	265 @ 4400	380 @ 2400	361	4.12 x 3.38	9.0	1 2-bbl.	2.93	3.23	3.23
D-500	V-8	325 @ 4600	425 @ 2800	383	4.25 x 3.38	10.0	1 4-bbl.	3.23	3.23	---
D-500 w/Ram Induction	V-8	330 @ 4800	460 @ 2800	383	4.25 x 3.38	10.0	2 4-bbl.	3.23	3.23	---
DODGE DART Six	6	145 @ 4000	215 @ 2800	225	3.40 x 4.125	8.2	1 1-bbl.	3.31	3.54	3.58
V-8	V-8	230 @ 4400	340 @ 2400	318	3.91 x 3.31	9.0	1 2-bbl.	3.31	3.58	3.31
V-8 Power Pack	V-8	260 @ 4400	345 @ 2800	318	3.91 x 3.31	9.0	1 4-bbl.	3.31	---	---
D-500	V-8	305 @ 4800	395 @ 3000	361	4.12 x 3.38	9.0	1 4-bbl.	3.31	NA	---
Police Special	V-8	325 @ 4600	425 @ 2800	383	4.25 x 3.38	10.0	1 4-bbl.	3.23	3.23	---
D-500 w/Ram Induction	V-8	330 @ 4800	460 @ 2800	383	4.25 x 3.38	10.0	2 4-bbl.	3.23	3.23	---
FORD Six	6	135 @ 4000	200 @ 2000	223	3.62 x 3.60	8.4	1 1-bbl.	3.56	3.56	3.89
292	V-8	175 @ 4200	279 @ 2200	292	3.75 x 3.30	8.8	1 2-bbl.	3.00	3.56	3.89
352	V-8	220 @ 4400	336 @ 2400	352	4.00 x 3.50	8.9	1 2-bbl.	3.00	3.56	3.56
390 Special	V-8	300 @ 4600	427 @ 2800	390	4.05 x 3.78	9.6	1 4-bbl.	3.00	3.56	3.56
390 Police Special	V-8	330 @ 5000	427 @ 3200	390	4.05 x 3.78	9.6	1 4-bbl.	3.00	3.56	3.89
390 Super	V-8	375 @ 6000	430 @ 3400	390	4.05 x 3.78	10.6	1 4-bbl.	NA	3.56	3.89
FORD THUNDERBIRD	V-8	300 @ 4600	427 @ 2800	390	4.05 x 3.78	9.6	1 4-bbl.	3.00	NA	---
IMPERIAL	V-8	350 @ 4600	470 @ 2800	413	4.18 x 3.75	10.1	1 4-bbl.	2.93	---	---
LINCOLN CONTINENTAL	V-8	300 @ 4100	465 @ 2000	430	4.30 x 3.70	10.0	1 2-bbl.	2.89	---	---
MERCURY Six	6	135 @ 4000	200 @ 2000	223	3.62 x 3.60	8.4	1 1-bbl.	3.56	3.56	3.89
292	V-8	175 @ 4200	279 @ 2200	292	3.75 x 3.30	8.8	1 2-bbl.	3.00	3.56	3.89
352	V-8	220 @ 4400	336 @ 2400	352	4.00 x 3.50	8.8	1 2-bbl.	3.00	3.56	3.89
390	V-8	300 @ 4600	427 @ 2800	390	4.05 x 3.78	9.6	1 4-bbl.	3.00	3.56	3.89
OLDSMOBILE Dynamic 88	V-8	250 @ 4400	405 @ 2400	394	4.13 x 3.69	8.8	1 2-bbl.	2.87	3.42	---
Super 88.98	V-8	325 @ 4600	435 @ 2800	394	4.13 x 3.69	10.0	1 4-bbl.	3.08, 3.23	3.42	---
Starfire	V-8	330 @ 4600	440 @ 2800	394	4.13 x 3.69	10.25	1 4-bbl.	3.42	---	---
PLYMOUTH Six	6	145 @ 4000	215 @ 2800	225	3.40 x 4.125	8.2	1 1-bbl.	3.31	3.54	---
Fury	V-8	230 @ 4400	340 @ 2400	318	3.91 x 3.31	9.0	1 2-bbl.	2.93	3.58	---
Super Fury	V-8	360 @ 4400	345 @ 2800	318	3.91 x 3.31	9.0	1 4-bbl.	2.93	3.58	---
Golden Commando	V-8	305 @ 4800	395 @ 3300	361	4.12 x 3.38	9.0	1 4-bbl.	3.31	3.31	---
Sonoramic Commando	V-8	330 @ 4800	460 @ 2800	383	4.25 x 3.38	10.0	2 4-bbl.	3.31	3.31	---
PONTIAC Catalina, Ventura, Star Chief	V-8	215 @ 3600	390 @ 2000	389	4.06 x 3.75	8.6	1 2-bbl.	---	3.23	3.08, 3.42
Bonneville (optional other series)	V-8	235 @ 3600	402 @ 2000	389	4.06 x 3.75	8.6	1 4-bbl.	---	3.23	3.08, 3.42
Catalina, Ventura w/Hydramatic	V-8	267 @ 4200	405 @ 2400	389	4.06 x 3.75	10.25	1 2-bbl.	2.69, 2.87	---	3.08, 2.56, 2.69
Catalina, Ventura w/Hydramatic (opt)	V-8	287 @ 4400	417 @ 2400	389	4.06 x 3.75	10.25	1 4-bbl.	2.69, 2.87	---	2.56, 3.08, 2.96
Star Chief w/Hydramatic	V-8	283 @ 4400	413 @ 2800	389	4.06 x 3.75	10.25	1 2-bbl.	2.87	---	2.69, 3.08
Bonneville w/Hydramatic	V-8	303 @ 4600	425 @ 2800	389	4.06 x 3.75	10.25	1 4-bbl.	2.87	---	2.69, 3.08
All series w/Hydramatic (optional)	V-8	230 @ 4000	380 @ 2000	389	4.06 x 3.75	8.6	1 2-bbl.	2.56	---	---
All series (optional)	V-8	318 @ 4600	430 @ 3200	389	4.06 x 3.75	10.75	3 2-bbl.	2.69	3.23	2.56, 2.69, 3.08, 3.42
All series (optional)	V-8	333 @ 4800	425 @ 2800	389	4.06 x 3.75	10.75	1 4-bbl.	3.08	3.42	3.64
All series (optional)	V-8	348 @ 4800	430 @ 3200	389	4.06 x 3.75	10.75	3 2-bbl.	3.08	3.42	3.64
RAMBLER Ambassador	V-8	250 @ 4700	340 @ 2600	327	4.00 x 3.25	8.7	1 2-bbl.	2.87	3.54	3.15, 4.10
Ambassador Power Pack	V-8	270 @ 4700	360 @ 2600	327	4.00 x 3.25	9.7	1 4-bbl.	3.15	3.54	2.87, 4.10
STUDEBAKER Hawk V-8	V-8	210 @ 4500	300 @ 2800	289	3.60 x 3.60	8.8	1 2-bbl.	3.07	3.31	3.54
Hawk V-8 Power Pack	V-8	225 @ 4500	305 @ 3000	289	3.60 x 3.60	8.8	1 4-bbl.	3.07	3.31	3.54

COMPACT CARS

BUICK SPECIAL	V-8	155 @ 4600	220 @ 2400	215	3.50 x 2.80	8.8	1 2-bbl.	3.08	3.36	---
Special	V-8	185 @ 4800	230 @ 3200	215	3.50 x 2.80	10.25	1 4-bbl.	NA	NA	---
CHEVROLET CORVAIR Turbo-Air	6	80 @ 4400	128 @ 2300	145	3.44 x 2.60	8.0	2 1-bbl.	3.27	3.27	3.55
Super Turbo-Air	6	98 @ 4600	132 @ 2800	145	3.44 x 2.60	8.0	2 1-bbl.	3.27	3.27	3.55
COMET 144	6	85 @ 4200	134 @ 2000	144	3.50 x 2.50	8.7	1 1-bbl.	3.50	3.50	---
170	6	101 @ 4400	156 @ 2400	170	3.50 x 2.94	8.7	1 1-bbl.	3.50	3.20	---
DODGE LANCER 170	6	101 @ 4400	155 @ 2400	170	3.40 x 3.125	8.2	1 1-bbl.	3.23	3.55	---
225	6	145 @ 4000	215 @ 2800	225	3.40 x 4.125	8.2	1 1-bbl.	3.23	3.55	---
FORD FALCON 144	6	85 @ 4200	134 @ 2000	144	3.50 x 2.50	8.7	1 1-bbl.	3.50	3.10	---
170	6	101 @ 4400	156 @ 2400	170	3.50 x 2.94	8.7	1 1-bbl.	3.50	3.20	---
OLDSMOBILE F-85	V-8	155 @ 4800	210 @ 3200	215	3.50 x 2.80	8.8	1 2-bbl.	3.23	3.07	---
F-85	V-8	185 @ 4800	230 @ 3200	215	3.50 x 2.80	10.25	1 4-bbl.	NA	NA	---
PLYMOUTH VALIANT	6	101 @ 4400	155 @ 2400	170	3.40 x 3.125	8.2	1 1-bbl.	3.23	3.55	3.23, 3.91, 3.55
PONTIAC TEMPEST	4	110 @ 3800	190 @ 2000	194.5	4.06 x 3.75	8.6	1 1-bbl.	---	3.55	3.31, 3.73
Tempest w/Hydramatic	4	130 @ 4400	195 @ 2200	194.5	4.06 x 3.75	8.6	1 1-bbl.	3.08	---	3.55
Tempest Premium Fuel	4	120 @ 3800	202 @ 2000	194.5	4.06 x 3.75	10.25	1 1-bbl.	---	3.31	3.55
Tempest Premium Fuel w/Hydramatic	4	140 @ 4400	207 @ 2200	194.5	4.06 x 3.75	10.25	1 1-bbl.	3.08	---	3.55
Tempest w/4-bbl	4	155 @ 4800	215 @ 2800	194.5	4.06 x 3.75	10.25	1 4-bbl.	3.55	---	3.08, 3.73
Tempest V-8	V-8	155 @ 4600	220 @ 2400	215	3.50 x 2.80	8.8	1 2-bbl.	3.55	---	3.08, 3.73
RAMBLER AMERICAN Deluxe, Super	6	90 @ 3800	160 @ 1600	195	3.13 x 4.25	8.0	1 1-bbl.	3.31	3.31	3.78, 4.11
AMERICAN Custom	6	125 @ 4200	180 @ 1600	195	3.13 x 4.25	8.7	1 1-bbl.	2.87	3.31	3.78
CLASSIC Six	6	127 @ 4200	180 @ 1600	195	3.13 x 4.25	8.7	1 1-bbl.	3.31	3.78	4.11, 4.38
CLASSIC Six Power Pack	6	138 @ 4500	185 @ 1800	195	3.13 x 4.25	8.7	1 2-bbl.	3.31	3.78	4.11, 4.38
CLASSIC V-8	V-8	200 @ 4900	245 @ 2500	250	3.50 x 3.25	8.7	1 2-bbl.	3.15	4.10	3.55, 4.44
CLASSIC V-8 Power Pack	V-8	215 @ 4900	260 @ 2500	250	3.50 x 3.25	8.7	1 4-bbl.	3.15	4.10	3.55, 4.44
STUDEBAKER LARK Six	6	112 @ 4500	154 @ 2000	170	3.00 x 4.00	8.5	1 1-bbl.	3.73	3.73	3.54, 4.10, 4.56
LARK V-8	V-8	180 @ 4500	260 @ 2800	259	3.60 x 3.25	8.8	1 2-bbl.	3.07	3.07	3.31, 3.54
LARK V-8 Power Pack	V-8	195 @ 4500	265 @ 3000	259	3.60 x 3.25	8.8	1 4-bbl.	3.07	3.07	3.31, 3.54

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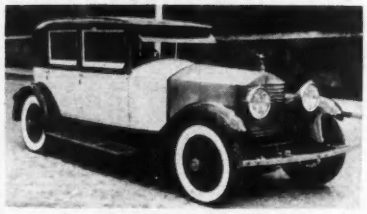

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continued on page 96

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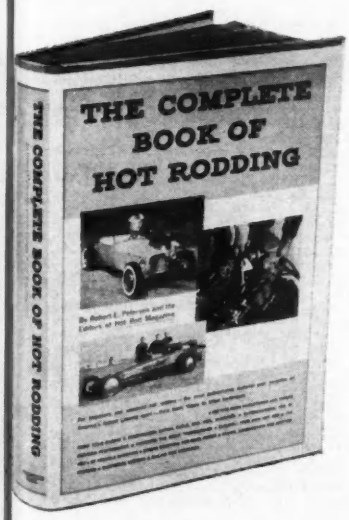

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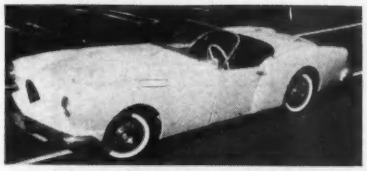

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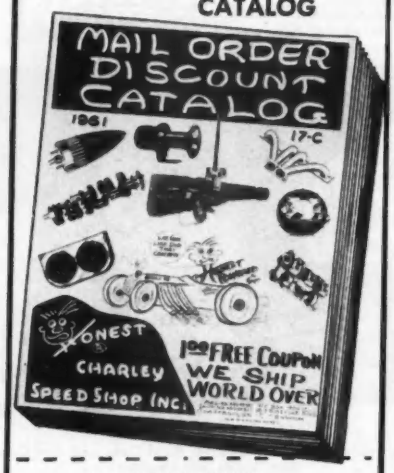

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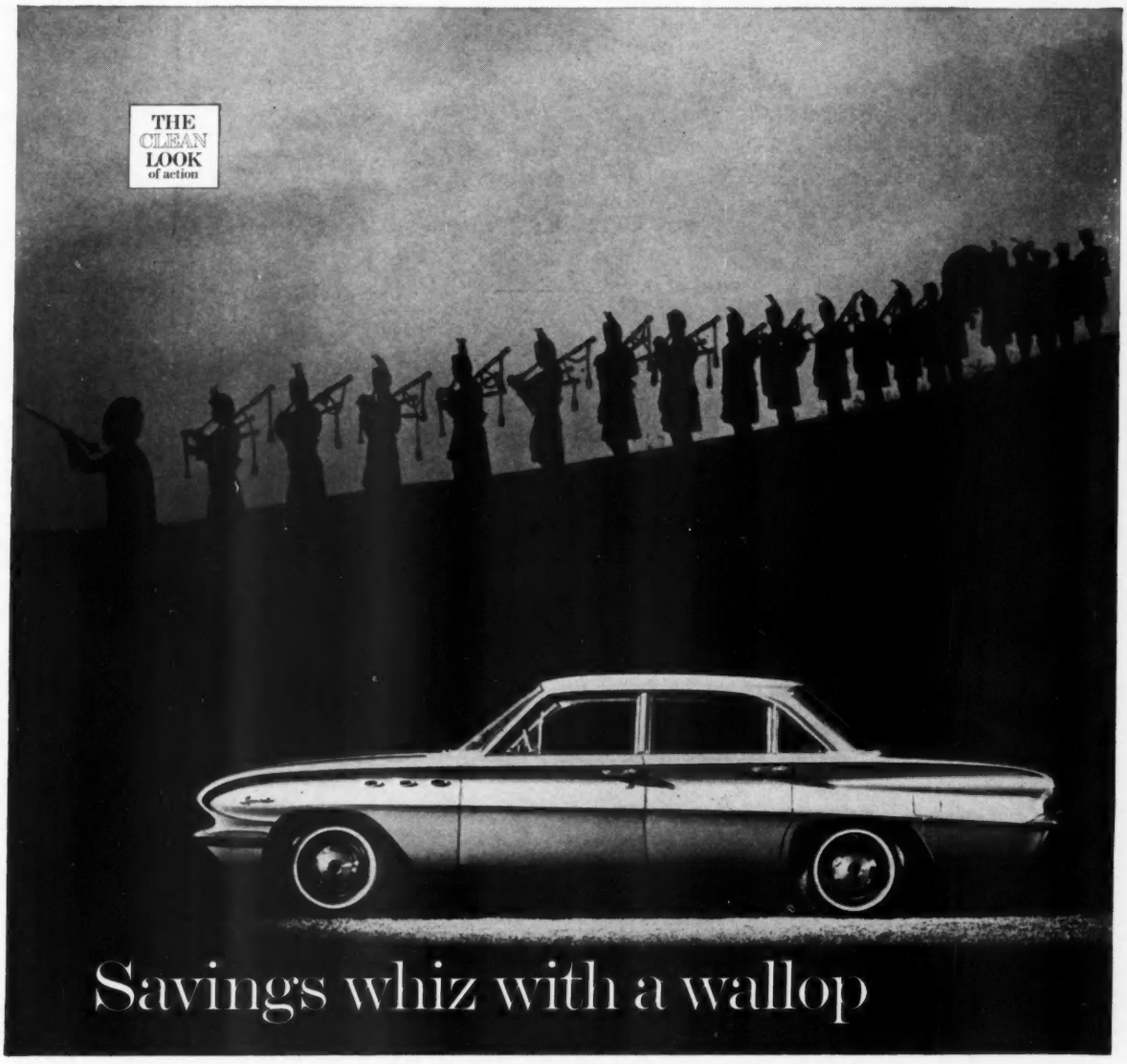

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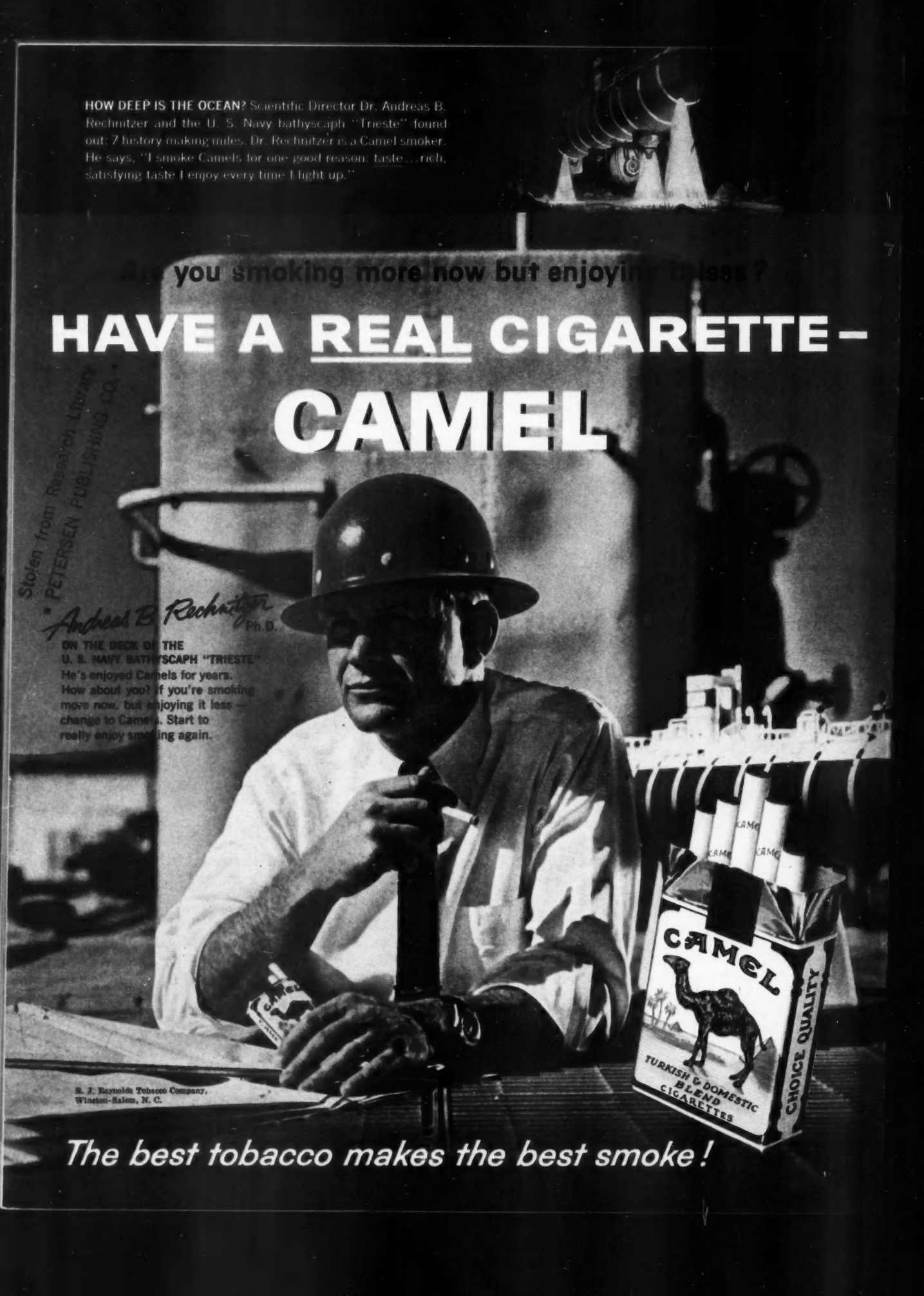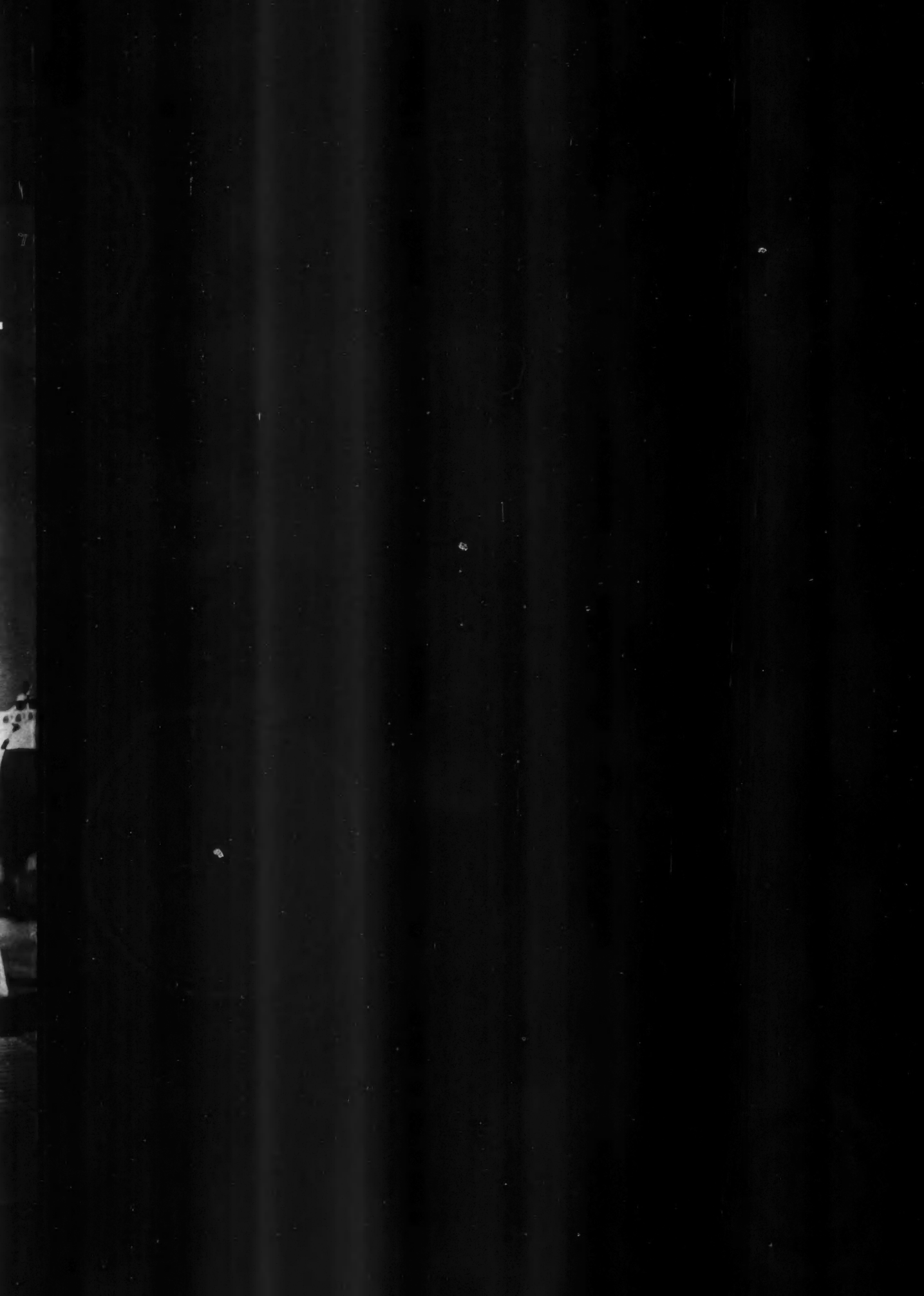
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